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# Periodic Review Report

April 29, 2019 to April 29, 2020

NYSDEC Site Number C828126

**Location:**

Volunteers of America – Back Lot Site  
214 Lake Avenue and 18 Ambrose Street  
Rochester, Monroe County, New York

**Prepared for:**

Volunteers of America of Upstate New York  
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## 1.0 EXECUTIVE SUMMARY

### 1.1 BACKGROUND AND REMEDIAL HISTORY

Bergmann is pleased to submit this Periodic Review Report (PRR) on behalf of Volunteers of America of Upstate New York, Inc. (VOA) for the VOA back lot site located at 214 Lake Avenue and 18 Ambrose Street, City of Rochester, Monroe County, New York (Site). The Site (site code C828126) is enrolled in the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP). Bergmann is retained by VOA for monitoring and reporting requirements in accordance with the Site Management Plan (SMP).

Based upon the results documented in the Remedial Investigation Report (RIR), dated January 4, 2012, the types of contamination at the site that were identified that required remediation included:

- Metals in overburden groundwater are the Contaminants of Concern (COC) site-wide;
- Metals and Semi-Volatile Organic Compounds (SVOCs) are the COC in historic fill materials site-wide; and
- Volatile Organic Compounds in a localized (hot spot) in an isolated area of historic fill materials.

Remedial actions completed at the site in accordance with the NYSDEC approved Alternatives Analysis Report/Remedial Action Work Plan (April 4, 2016) and the NYSDEC Decision Document (March 31, 2016) include the following cleanup tasks.

- Site clearing/grubbing, waste characterization, landfill approvals, excavation and transportation for disposal of source area (hot spot) contaminated soils, backfilling the source area excavation, installation of the storm water management system from May 2016 through mid-June 2016.
- Site grading, construction of Site cover system (excluding Haidt Place), installation of fencing, and sealing of cracks in existing roadway and parking areas from mid-June through September 2016.
- Excavation of soil/fill material along the right-of-way of Haidt Place and the installation of a cover system from March through September 2017.
- Prepared a Final Engineering Report (FER) that documents the cleanup and a SMP for long term management of remaining contamination as required by the Environmental Easement;
- Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to any contamination remaining at the Site;
- Periodic certification of the institutional and engineering controls (on-going); and,
- Implementation of a long-term groundwater monitoring plan (on-going).

The site was remediated under the New York State Brownfield Cleanup Program (NYS BCP) administered by the NYSDEC as presented in the approved Final Engineering Report (FER) and Site Management Plan (SMP) dated, December 28, 2017. A SMP was prepared for the Site for long-term management of remaining contamination as required by the Environmental Easement. In accordance with the SMP and the requirements in NYSDEC Division of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation, dated May, 2010, and the guidelines provided by NYSDEC the following required work detailed in the SMP was completed during the reporting period from April 29, 2019 through April 29, 2020.



- an annual inspection was conducted of all Engineering controls (EC) and Institutional controls (IC) with reporting on January 14, 2020.
- Quarterly monitoring and reporting of sample results from site monitoring wells was completed as four (4) groundwater sampling events during 2019. Field work for First Quarter monitoring and sampling for 2020 was not completed due this work deemed non-essential by NYSDEC during the on-going pandemic. The 2020 Quarterly monitoring may resume in the second quarter of 2020.
- Second Quarter groundwater monitoring is tentatively scheduled for June 2020.

## 1.2 EFFECTIVENESS OF THE REMEDIAL PROGRAM

Progress made during the reporting period toward meeting the remedial objectives for the site include continued monitoring of groundwater and maintenance of the institutional and engineering controls in accordance with the SMP. Monitoring data from the work completed to date shows that the remedial program is currently meeting the remedial objectives for the Site during two (2) years with eight (8) Quarterly groundwater monitoring events.

## 1.3 COMPLIANCE

Areas and conditions of the Site were not identified as being currently out of compliance with the SMP requirements. The requirements dictated in the SMP regarding IC/EC's and the Monitoring Plan were met during the reporting period. The repairs to the cover system during 2019 did not compromise the integrity of the protectiveness of this EC. Repairs presented in the Annual Maintenance Inspection Report should be made before the end of 2020 to ensure continued integrity of the cover system.

## 1.4 RECOMMENDATIONS

Residual impacts to groundwater quality at the Site are considered low in concentration and has been documented in 2018 and 2019 post-remediation groundwater samples to remain consistent or decreasing over time. It is recommended that groundwater monitoring activities be evaluated for potential termination of Quarterly groundwater monitoring based on the results of eight (8) Quarterly groundwater monitoring events completed at the end of 2019.

Sealing repairs to limited areas of the Type 2 cover system are required during 2020 based on the results of the annual EC/IC inspection. The area of Type 2 cover system was installed in 1998 and is the roadway along Haidt Place that runs north south behind the VOA Children's Center.

## 2.0 SITE OVERVIEW

VOA entered into a Brownfield Cleanup Agreement (BCA) with the NYSDEC on June 15, 2005, to investigate and remediate a 3.055-acre property located at 18 Ambrose Street (214 Lake Avenue Rear Lot), City of Rochester, Monroe County, New York (Site). The property was remediated to enable restricted-residential use. The BCA was amended on May 31, 2016 and September 27, 2017. The Site is in the City of Rochester, County of Monroe, New York and is identified as Tax Lot #105.60-2-59.003 (18 Ambrose Street) on the City of Rochester Tax Map, which constitutes 1.997 acres and comprises two-thirds of the Site. A portion of Tax Lot #105.60-2-1.002 (214 Lake Avenue), which constitutes 1.058 acres is the balance one-third of the Site. The Site is 3.055-acre area bounded by commercial properties (contractor's yard) to the north Ambrose Street to the south, a contractor's yard to the east



and beyond is the Genesee River Gorge. The VOA Human Service Complex property adjoins the Site to the west (see Figure 1 – Well Location Map). The boundaries of the Site are depicted on Figure 1.

The majority of the Site is located at 18 Ambrose Street, west of the former Raeco Oil Superfund Site, and south of a contractor's equipment storage yard, associated building, and a Monroe County right-of-way to the Pure Waters Tunnel Structure 41. The Site is comprised of portions of two (2) tax parcels of land, which are referred to as the eastern portion of Parcel A and all of Parcel B. The majority of the Site is largely undeveloped, and the western portion of the Site is improved with parking lot area and roadway.

The Site was at one time the southernmost portion of RG&E's approximately 20-plus-acre parcel known as the Ambrose Street or Lake Avenue Coal Yard. Part of former Ambrose Street Coal Yard that is currently, VOA's property was used for surface coal storage from approximately 1918 through the mid-1960's. Subsequent to the use of the property for coal storage, the northeast portion of the Site was used by automobile dealerships from at least 1971 through 1997 for parking/storage of vehicles. Kaplan Container, a drum cleaning company, was also present on this portion of the Site. Prior to 1918, portions of the property had residential structures, which appear to have been demolished on Site into a large deep ravine, which traverses approximately through the middle of the Site, from South to North. This large ravine was historically filled. Railroad tracks were then constructed on top of the historic fill to allow for the transport of coal from existing stockpiles.

Potential contaminants of concern (COC) at the site include metals and SVOCs based on the Remedial Investigation Report (RIR). Volatile Organic Compounds (VOCs) are also included as a COC based on the past presence of levels of VOCs on the off-site VOA Human Services Complex at 214 Lake Avenue. A bedrock groundwater investigation was included as part of the RI scope of work to confirm that off-site VOCs in groundwater had not impacted the Site's groundwater at levels that would require remediation. Low levels of VOCs have been detected in limited groundwater samples in Site monitoring wells. The primary COCs identified in Site media include heavy metals and SVOCs in soil and groundwater systems.

Elevated levels of heavy metal concentrations have been detected Site-wide in samples from the overburden groundwater and to a lesser extent in the bedrock groundwater. The overlying historic fill soils are the source of metals at the Site. Groundwater monitoring of the low-level impacts for metals in groundwater at the Site is part of the selected remedial alternative. The physical impacts to groundwater are partially suppressed by the cover system and storm water management sewer systems, which reduce the infiltration of surface water runoff into the subsurface at the Site, thus reducing further impacts to groundwater. Engineering Controls (EC), along with Institutional Controls (ICs) and Environmental Easements (EE), detailed in the SMP, are implemented to provide protection of human health and the environment. Groundwater quality will be monitored during a five (5) year period on Quarterly basis to evaluate the groundwater quality and groundwater flow direction for the duration of the post-remediation period. After the results of 2-years of groundwater monitoring are completed the duration of the 5-year period of Quarterly monitoring will be petitioned for reduction, pending NYSDEC approval. The methods and procedures for post-remediation groundwater monitoring are detailed in the SMP.



### 3.0 EVALUATE REMEDY PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS

It appears that the levels and types of metals detected during the 2009 RI event have been substantially reduced based on 2-years of post-remediation groundwater monitoring. This trend of reduction of metals is documented in the 2019 Quarterly monitoring reports that were submitted to NYSDEC. In addition, results for post-remediation groundwater monitoring during 2019 indicates a substantial reduction for heavy metals (RCRA 8 Metals) below groundwater standards in groundwater quality as compared to the 2009 RI event elevated levels as noted below.

Range of RCRA 8 Metals Levels 2009 RI Event		Range of levels at end of 2018	Range of levels at end of 2019	703.5 GA Groundwater Standards
Arsenic	13.5 ppb to 160 ppb	Non-detect (ND)	ND	13 ppb
Barium	320 ppb to 1,840 ppb	ND to 131 ppb	ND to 277 ppb	350 ppb
Cadmium	5.6 ppb to 6.2 ppb	ND	ND to 10.8 ppb	2.5 ppb
Chromium	21.5 ppb to 319 ppb	ND	ND	30 ppb
Lead	5 ppb to 6,600 ppb	ND to 11.9 ppb	ND to 55.4 ppb	63 ppb
Mercury	0.93 ppb to 193 ppb	ND	ND to 0.363 ppb	0.18 ppb
Selenium	6 ppb to 21.8 ppb	ND to 10.9 ppb	ND	10 ppb
Silver	2.4 ppb to 16 ppb	ND	ND	2 ppb

In addition to the reduction of heavy metals from 2009 levels the following trends for 2019 groundwater quality results support the performance and effectiveness of the remedy:

- Trend for periodic low levels and lack of frequency of detections of SVOCs with concentrations below 703.5 groundwater quality standards or at levels that slightly exceed the standards;
- Low levels of VOCs previously detected in groundwater samples during the RI event have been reduced to levels that are non-detect (ND), essentially unchanged and below NYSDEC groundwater standards;
- Levels of iron, manganese, and sodium are metals that exceeds groundwater standards with concentrations that were reduced from elevated 2009 RI event levels; and
- Groundwater quality results indicate the effectiveness of the cover system and storm water management sewer system that suppress impacts to groundwater by reducing infiltration of surface water runoff into the subsurface at the Site, thus reducing further impacts to groundwater.

The results of the 2019 Annual Engineering IC/EC Inspection certifies that the condition of the EC (cover system) and IC meets the objectives of the remedy for protectiveness of human health in the environment, see Appendix 2. Continued implementation of the IC, EC and EE detailed in the SMP provides protection of human health and the environment.



## 4.0 IC/EC COMPLIANCE

### 4.1 INSTITUTIONAL CONTROLS

The IC boundaries are the same as the BCP Site boundaries as shown on Figure 1. The following IC are included in the SMP for the Site:

- The property may be used for restricted-residential, commercial, or industrial uses;
- All ECs must be operated and maintained as specified in the SMP;
- All ECs must be inspected at a frequency and in a manner defined in the SMP;
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Monroe County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department.
- Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in the SMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with the SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in the SMP;
- Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easements.
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries (entire Site) noted on Figure 1. Areas of soil vapor concern and any potential impacts that are identified must be monitored or mitigated; and
- Vegetable gardens and farming on the site are prohibited.

The site-wide inspection in 2019 determined that IC have been complied with including compliance with the EE and the SMP. There are no new conclusions or recommendations for change of IC at this time, see Annual Inspection Report for IC/EC in Appendix 1 – Annual Inspection Report. The NYSDEC IC/EC certification form is presented in Appendix 2 – NYSDEC IC/EC Certification Form.

### 4.2 ENGINEERING CONTROLS

The EC at the site is the site-wide cover system. The cover system is a permanent EC and the quality and integrity of this system will be maintained and inspected in accordance with maintenance items in the Maintenance Plan and defined inspection intervals in accordance with the SMP in perpetuity. The EC is in compliance based on the 2019 Annual Inspection Report of IC/EC presented in Appendix 1 and EC/IC are certified, see Appendix 2.



## 5.0 MONITORING PLAN COMPLIANCE

### 5.1 MONITORING PLAN COMPONENTS

Monitoring and laboratory analyses were completed in accordance with the SMP. A summary of the routine monitoring and analyses is provided in the table below

Monitoring Program	Frequency	Monitored	Matrix	Analysis
Groundwater	Quarterly until otherwise approved by NYSDEC and NYSDOH	MWR-101, MW-101, MWR-102, MW-102, MW-103, MW-105, MW-106, and MW-107	Groundwater	TCL VOCs & SVOCs, TAL Metals
Site Cover / Property Use	Annually until otherwise approved by NYSDEC and NYSDOH	Inspection of Site Cover Condition, Property Use and Environmental Easements	Not Applicable	Not Applicable

### 5.2 GROUNDWATER MONITORING DATA

Groundwater monitoring was performed Quarterly during the reporting period using low flow sampling methodology in accordance with the SMP. Therefore, post-remediation groundwater sampling has included eight (8) rounds of sampling and reporting to NYSDEC from 2018 and 2019 in addition to the original two (2) rounds of sampling included in the FER. The post-remediation groundwater sampling events during 2019 and through the reporting period have occurred on the following dates:

- April 2, 2019 – Report submitted to NYSDEC
- June 27, 2019 – Report submitted to NYSDEC
- October 4, 2019 – Report submitted to NYSDEC
- January 3, 2020 – Report submitted to NYSDEC
- April 2020 – First Quarterly sampling not completed due to non-essential DEC project work during pandemic.

### 5.3 WELL MAINTENANCE

Bergmann performs quarterly groundwater sampling at the Site as required in the SMP. In 2019, the existing monitoring wells were accessible for each Quarterly sampling event. Monitoring and sampling at the Site are ongoing in accordance with the Site Management Plan (SMP). The integrity of the monitoring wells at the Site do not appear to be compromised. Monitoring wells in the sampling network appear to be in good condition based on observations during quarterly field sampling. It is noted that MW-101 concrete surface seal was observed to be cracked on the surface; however, this cracking does not appear to impact water quality in this well. The surface seal is recommended for replacement in the 2020 calendar year. Groundwater monitoring well conditions and field observations are summarized in the table below.



Well Number	Type of Well	Location of Well	Condition 1 <sup>st</sup> Quarter	Condition 2 <sup>nd</sup> Quarter	Condition 3 <sup>rd</sup> Quarter	Condition 4 <sup>th</sup> Quarter
MW-101	Overburden	Down - gradient	Cracked Surface Seal	Cracked Surface Seal	Cracked Surface Seal	Cracked Surface Seal
MW-101R	Bedrock	Down - gradient	Good	Good	Good	Good
MW-102	Overburden	Cross - gradient	Good	Good	Good	Good
MW-102R	Overburden	Down - gradient	Good	Good	Good	Good
MW-103	Overburden	Down - gradient	Good	Good	Good	Good
MW-105	Overburden	Up - gradient	Good	Good	Good	Good
MW-106	Bedrock	Up - gradient	Good	Good	Good	Good
MW-107	Overburden	Cross - gradient	Good	Good	Good	Good

## 5.4 GROUNDWATER FIELD MONITORING AND SAMPLING ACTIVITIES

Groundwater measurements and sampling activities were conducted in accordance with Section 4.0 of the SMP. The depths to groundwater for monitoring wells are measured and recorded on a quarterly basis to track site-wide changes in the water table elevation. The sample collection procedures were generally consistent with Section 4.4.1 in the SMP. Groundwater was purged from the wells using a low flow pump and sample collection. Water was pumped into a flow-through stabilization chamber to collect field readings for pH, temperature, specific conductance, dissolved oxygen (DO), oxidation reduction potential (ORP), turbidity, pH, and temperature parameters. Wells were purged until field readings for groundwater quality indicator parameters stabilized for at least three (3) consecutive readings for the following parameters;

- Water Level Drawdown <0.3 feet
- Temperature - +/- 3%
- pH - +/- 0.1 unit
- Dissolved Oxygen - +/-10%
- Specific Conductance - +/-3%
- Oxidation Reduction Potential - +/-10 millivolts
- Turbidity - +/-10% for values greater than 1 NTU

Purge water from wells was discharged onto the asphalt cover system near each well, as detailed in the SMP. Groundwater samples for the wells were collected directly from the pump discharge line into vials and containers provided by the analytical laboratory. Samples were chemically and thermally preserved as specified by the methodology and/or laboratory and placed in a designated cooler, pre-chilled with ice. Samples were recorded on a chain-of-custody and delivered to the Paradigm Environmental Services, Inc. of Rochester, New York for analysis, an Environmental Laboratory Accreditation Program (ELAP) certified laboratory. Duplicate samples and a trip blank were also collected during the event for quality assurance/quality control (QA/QC) purposes.

Deviations from the monitoring plan included the following items:

- Fourth Quarter sampling event was scheduled for December 27, 2019 and was sampled on January 3, 2020 due to inclement weather.



## 5.5 SITE GROUNDWATER ELEVATIONS AND FLOW CHARACTERIZATION

The depth to water measurements in the overburden groundwater monitoring wells was measured and water table maps were calculated from elevations that present the approximate groundwater flow directions for 2019. Six (6) overburden monitoring wells were part of the current monitoring well network, as shown on Figure 1. The 2019 overburden monitoring wells monitored included six (6) monitoring wells. Depth to water measurements were recorded during each quarterly monitoring event on April 2, 2019, June 27, 2019, October 4, 2019 and January 3, 2020. The depth to water measurements and calculated elevations are presented in Table 1 – 2019 Groundwater Elevations Summary.

The groundwater contours generally indicate an overburden groundwater flow direction in a northeast direction in the area of the buried ravine in the central area of the Site indicated by a depression in the contour lines. The following is a summary of depth to the water table and overburden groundwater flow characterization for each sampling event in 2019.

### First Quarter 2019

Depth to groundwater was measured from six (6) overburden wells and two (2) bedrock wells on April 2, 2019. The April depths to groundwater in overburden groundwater monitoring wells ranged from 15.78 ft. below ground surface (bgs) at MW-101 to 33.06 ft. bgs at MW-103. Both MWR-101 and MWR-102 are bedrock monitoring wells with depth to water at 19.58 ft. and 26.80 ft.; respectfully. The average depth to groundwater at the six (6) overburden monitoring wells measured was 22.45 ft. bgs. Compared to the July 27, 2009 Remedial Investigation sampling event, the April average water table in the overburden decreased by approximately 2.33 ft. This decrease in the water table is inferred as seasonal. First Quarter groundwater depth to water and water table elevations are presented Table 1.

The overburden groundwater contour configuration for April 2, 2019 indicates an overburden groundwater flow direction based on the water level data collected on April 2, 2019, a Water Table Map was created using groundwater elevations and is presented as Figure 2 – Water Table Map (overburden) April 2, 2019. As indicated on Figure 2, groundwater flow in the overburden groundwater table was toward the east from the west side of the Site and towards the west from the east side of the Site. It also appears that there is a northern flow component within the former ravine. The controlling subsurface feature is the former filled ravine that is located below the central area of the Site. The configuration of the groundwater contours is similar to the configuration presented in the July 27, 2009 RI Figure 6 located in the figure section of this report.

### Second Quarter 2019

The June depths to groundwater ranged from 18.32 ft. below ground surface (bgs) at MW-105 to 36.64 ft. bgs at MW-103. Depth to water was 21.10 ft. and 28.37 ft. in bedrock wells MWR-101 and MWR-102; respectfully. The average depth to groundwater at the six (6) overburden monitoring wells measured was 25.14 ft. bgs. Compared to the April 2019 sampling event, the June average depth to water in the overburden increased by approximately 2.69 ft. This increase in the depth to the water table is inferred as seasonal. Second Quarter groundwater depth to water and water table elevations are presented Table 1.

The overburden groundwater contour configuration for June 27, 2019 indicates an overburden groundwater flow direction based on a Water Table Map; see Figure 3 – Water Table Map (overburden) June 27, 2019. As indicated on Figure 3, groundwater flow in the overburden groundwater table was toward the east from the west side of the Site and towards the west from the east side of the Site. It also appears that there is a northern flow component within the former ravine. The controlling subsurface feature is the former filled ravine that is located below the central area of the Site. The configuration of the groundwater contours is similar to the



configuration presented in the 2019 First Quarter event and July 27, 2009 RI Figure 6 located in the figure section of this report.

### **Third Quarter 2019**

The October depths to groundwater in overburden groundwater monitoring wells ranged from 18.73 ft. below ground surface (bgs) at MW-105 to 39.53 ft. bgs at MW-103. Depth to water was 21.95 ft. and 29.20 ft. in bedrock wells; MWR-101 and MWR-102; respectfully. The average depth to groundwater at the six (6) overburden monitoring wells measured was 26.86 ft. bgs. Compared to the June 2019 sampling event, the October average depth to water in the overburden increased by approximately 1.72 ft. This increase in the depth to the water table is inferred as seasonal. Third Quarter groundwater depth to water and water table elevations are presented Table 1.

The overburden groundwater contour configuration for October 4, 2019 indicates an overburden groundwater flow direction based on a Water Table Map; see Figure 4 – Water Table Map (overburden) October 4, 2019. As indicated on Figure 4, groundwater flow in the overburden groundwater table was toward the east from the west side of the Site and towards the west from the east side of the Site. It also appears that there is a northern flow component within the former ravine. The controlling subsurface feature is the former filled ravine that is located below the central area of the Site. The configuration of the groundwater contours is similar to the configuration presented in the 2019 First and Second Quarter events as well as the July 26, 2009 RI Figure 6 located in the figure section of this report.

### **Fourth Quarter 2019**

The January 3, 2020 (fourth Quarter 2019 sample date) depths to groundwater in overburden groundwater monitoring wells range from 18.18 ft. bgs at MW-105 to 39.03 ft. bgs at MW-103. Depth to water was 21.55 ft. and 28.71 ft. in bedrock wells MWR-101 and MWR-102; respectfully. The average depth to groundwater at the six (6) overburden monitoring wells measured was 26.35 ft. bgs. Compared to the October 2019 sampling event, the January average depth to water in the overburden decreased by approximately 0.51 ft. This decrease in the depth to the water table is inferred as seasonal. Fourth Quarter groundwater depth to water and water table elevations are presented Table 1.

The overburden groundwater contour configuration for October 4, 2019 indicates an overburden groundwater flow direction based on a Water Table Map; see Figure 5 – Water Table Map (overburden) October 4, 2019. As indicated on Figure 5, groundwater flow in the overburden groundwater table was toward the east from the west side of the Site and towards the west from the east side of the Site. It also appears that there is a northern flow component within the former ravine. The controlling subsurface feature is the former filled ravine that is located below the central area of the Site. The configuration of the groundwater contours is similar to the configuration presented in the 2019 First, Second and Third Quarter events as well as the July 27, 2009 RI Figure 6 located in the figure section of this report.

## **6.0 MONITORING WELL GROUNDWATER ANALYSIS SUMMARY**

Groundwater analytical sample results from each monitoring well are compared to NYSDEC 703.5 Class GA groundwater standards and to concentrations from the July 2009 RI event, presented in Appendix 3 – RI Summary Tables for Groundwater Sample Results. Groundwater analytical laboratory reports are presented in Appendix 4 - Laboratory Results. These results are summarized below for each of the Quarterly monitoring events as follows:



## **First Quarter 2019**

### **Metals**

Results for metals are significantly reduced in comparison to the RI event as noted below for samples from each monitoring well as summarized in Table 2 – 2019 Groundwater Sample Metals Summary.

#### **MW-101**

The April 2, 2019 results are compared to the previous results (July 2009). Since, this well was not sampled during 2018 due to a damaged roadway box. Levels of metals indicate substantial reduction in concentrations, except for sodium that increased from 125,000 ppb to 176,000 ppb. This is the same reduction trend observed in samples from other monitoring wells during 2019.

Manganese with a concentration of 412 ppb exceeds the groundwater standard of 300 ppb. Sodium with a concentration of 176,000 ppb exceeds the groundwater standard of 20,000 ppb. Results for other metals have been reduced to non-detect or are below groundwater standards.

#### **MWR-101**

Results from Well MWR-101 indicate an increase of Iron from 112 ppb to 306 ppb that slightly exceeds the groundwater standard of 300 ppb. The level of Lead remained unchanged at non-detect (ND) that is below the standard of 25 ppb. The level of Manganese decreased 434 ppb to 164 ppb that is below the standard of 300 ppb. The level of Selenium remained at ND that is below the standard of 10 ppb. The level of Sodium exceeds the standard of 20,000 ppb and increase from 747,000 ppb to 3,020,000 ppb for this event. Overall, levels have slightly increased during the 2019 First Quarter as compared to the Fourth Quarter 2018 and levels are lower than detected during the 2009 RI event except for increase Sodium. The types of metals detected has also decreased as compared to the 2009 RI event; see Table 2.

#### **MW-102**

Results from Well MW-102 indicate a decrease of Barium from 807 ppb to 603 ppb that is below the standard of 1,000 ppb. The level of Iron decreased from 43,200 ppb to 9,270 ppb that exceeds the standard of 300 ppb. Lead remained unchanged at ND and is below the standard of 25 ppb. The levels of Manganese decreased from 1,340 ppb to 770 ppb that exceeds the standard of 300 ppb. The levels of Selenium remained unchanged at ND. The level of Sodium exceeds the standard of 20,000 ppb and decreased from 1,760,000 ppb to 1,590,000 for this event. Overall, levels of metals detected have decreased from the 2018 Fourth Quarter event and are significantly below levels detected during the 2009 RI event, except for Sodium; see Table 2.

#### **MWR-102**

Results indicate an increase of Iron from 581 ppb to 1,210 ppb that exceeds the standard of 300 ppb. The level of Manganese slightly decreased from 132 ppb to 131 ppb for this event and is below the standard of 300 ppb. The level of Selenium slightly decreased from 10.9 ppb to ND and is below the standard of 10 ppb. The level of Sodium decreased from 307,000 ppb to 305,000 for this event and exceeds the standard of 20,000 ppb. Overall, levels of metals detected decreased from 2018 Fourth Quarter event and are in the range of levels detected during the 2009 RI event; see Table 2.

#### **MW-103**

Results indicate an increase of Iron from 754 ppb to 1,650 ppb that exceeds the standard of 300 ppb. The level of Lead remained unchanged at ND and is below the standard of 25 ppb. Manganese slightly decreased from 340 ppb to 331 ppb and slightly exceeds the standard of 300 ppb. The level of Selenium remained unchanged at ND and is below the standard of 10 ppb. The level of Sodium slightly decreased and is in the same range from 134,000 ppb to 133,000 ppb for this event and exceeds the standard of 20,000 ppb. Overall, the levels of metals



detected decreased from 2018 Fourth Quarter event and are in the range of levels detected during the 2009 RI event; see Table 2.

#### **MW-105**

Results indicate a decrease of Iron from 7,930 ppb to non-detect that is below the standard of 300 ppb. The level of Lead decreased from 11.9 ppb to ND that is below the standard of 25 ppb. Manganese decreased from 134 ppb to 48.7 ppb that is below the standard of 300 ppb. The level of Selenium remained unchanged at ND and is below the standard of 10 ppb. The level of Sodium decreased from 96,200 ppb to 94,500 and exceeds the standard of 20,000 ppb. Overall, the levels of metals decreased during the 2019 first Quarter compared to the 2018 Fourth Quarter and are significantly lower compared to the 2009 RI event except for Sodium. The level of Sodium is in the same range as the 2009 RI event. The types of metals detected has also decreased as compared to the 2009 RI event; see Table 2.

#### **MW-106**

Results indicate a decrease of Iron from 455 ppb to 366 ppb that exceeds the standard of 300 ppb. The level of Lead remained unchanged at ND and is below the standard of 25 ppb. The level of Selenium remained unchanged at ND that is below the standard of 10 ppb. The level of Sodium increased from 22,500 ppb to 25,100 ppb for this event that exceeds the standard of 20,000 ppb. Overall, the levels of metals slightly decreased during the 2019 First Quarter as compared to the 2018 Fourth Quarter and are significantly lower compared to the 2009 RI event. The types of metals detected has also decreased as compared to the 2009 RI event; see Table 2.

#### **MW-107**

Results indicate an increase of Iron from 2,740 ppb to 4,310 ppb that exceeds the standard of 300 ppb. Manganese decreased from 378 ppb to 418 ppb that exceeds the standard of 300 ppb. The level of Selenium remained at ND and is below the standard of 10 ppb. The level of Sodium decreased from 63,000 ppb to 56,800 ppb for this event and exceeds the standard of 20,000 ppb. Overall, the levels of metals detected slightly decreased during the 2019 First Quarter Fourth Quarter as compared to the 2018 Fourth Quarter and are significantly lower than the 2009 RI event. The types of metals detected has also decreased as compared to the 2009 RI event; see Table 2.

#### **METALS SUMMARY**

It appears that the levels and types of metals detected during the 2009 RI event have been substantially reduced based on the five (5) post-remediation groundwater monitoring. This trend of reduction of metals is documented in the 2018 Quarterly monitoring reports and this 2019 First Quarter report. Overall, there was a slight decrease from the 2018 Fourth Quarter compared to the 2019 first Quarter. It appears that metals are the primary COC for post-remediation groundwater quality monitoring based on the levels detected and frequency of detections. The sample results for metals are summarized in the Table 2 of this report. A copy of the laboratory report for this event is presented in Appendix 4.

#### **Semi-Volatile Organic Compounds (SVOCs)**

##### **MW-101**

Levels of SVOCs were ND for 2019 first Quarter and indicate a reduction from low levels of the following estimated concentrations of SVOC's that exceed groundwater standards detected during the previous RI events.

##### **MWR-101**

Levels of SVOCs remained unchanged at ND. Except for the level of Bis (2-ethylhexyl) phthalate. Bis (2-ethylhexyl) phthalate at 22.7 ppb exceeded the groundwater standard of 5 ppb during the 2018 fourth Quarter and decreased



to ND during the 2019 first Quarter event, see Appendix 4. Bis (2-ethylhexyl) phthalate was detected in this well during the 2009 RI event and 4.0J ppb. Overall, the level of Bis (2-ethylhexyl) phthalate has decrease to ND.

#### **MW-102**

Levels were unchanged at ND during the 2018 Fourth Quarter and 2019 First Quarter events. Levels of SVOCs were ND or below standards during the RI event.

#### **MW-102R**

Levels were unchanged at ND during the 2018 Fourth Quarter and 2019 First Quarter events; see Appendix B. Levels of SVOCs were ND or below standards during the RI event, except for detection of Bis (2-Ethylhexyl) Phthalate at 9.0 ppb that slightly exceeded the standard of 5 ppb.

#### **MW-103**

Levels were unchanged at ND during the 2018 Fourth Quarter and 2019 First Quarter events.

Levels of SVOCs slightly exceeded standards during the RI event, see Appendix 3.

#### **MW-105**

Levels were unchanged at ND during the 2018 Fourth Quarter and 2019 First Quarter events. Levels of SVOCs were ND or below standards during the RI event.

#### **MW-106**

Level of Pyrene were unchanged at ND during the 2018 Fourth Quarter and 2019 First Quarter events.

Other SVOCs were ND during the 2019 First Quarter event. Levels of SVOCs exceeded standards during the RI event.

#### **MW-107**

Levels were unchanged at ND during the 2018 Fourth Quarter and 2019 First Quarter events. This monitoring well was sampled during the RI event for metals only. Therefore, there are no previous RI event results for SVOCs for this well.

#### **SVOCs SUMMARY**

In general, the low levels of SVOCs previously detected in groundwater samples during the RI event have been reduced to levels that are ND and below standards, see Appendix 3 and 4. It should be noted that the majority of the SVOCs detected during the RI event were estimated values and or detected in the blank samples. It appears that SVOCs are a secondary COC for post-remediation groundwater monitoring based on the low levels and lack of frequency of detections. A copy of the laboratory report for this event is presented in Appendix 4.

#### **Volatile Organic Compounds (VOCs)**

##### **MW-101**

The results for VOCs during the previous RI event was ND, except for and estimated value of 2.0JB ppb of Acetone that was also detected in the VOC trip blank. Results for 2019 First Quarter were ND.

##### **MW-101R**

The results for low level VOC decreased from 2018 Fourth Quarter to 2019 First Quarter. The level of cis-1, 2-Dichloroethene decreased from 4.34 ppb to 1.71J and is below the standard of 5 ppb. The level of other VOCs remained unchanged at ND. Overall, this low-level detection of cis-1, 2-Dichloroethene is consistent with levels detected during previous Quarterly events and lower compared to the RI events, see Appendix 3.

**MW-102**

Levels were ND during 2018 Fourth Quarter event and remain at ND for the 2019 First Quarter event. Levels of VOCs were ND or below standards during the RI event.

**MW-102R**

Levels of cis-1, 2-Dichloroethene decreased from 1.18J in 2018 Fourth Quarter to 1.53J ppb for the 2019 First Quarter. This estimated value is below the standard of 5 ppb. Methyl tert-butyl Ether (MTBE) was detected with a concentration of 9.65 ppb in 2018 Fourth Quarter that increased to 20.7 ppb in the 2019 First Quarter event that exceeds the standard of 10 ppb. Levels of cis-1, 2-Dichloroethene at 1.0J ppb and MTBE at 31.0 ppb were detected during the RI event. Therefore, overall the levels of these VOCs have remained the same or decreased.

**MW-103**

Levels were ND during the 2018 Fourth Quarter event and remain at ND for the 2019 First Quarter event. Levels of VOCs were ND or below standards during the RI event.

**MW-105**

Levels were ND during the 2018 Fourth Quarter event and remain at ND for the 2019 First Quarter event. Levels of VOCs were ND or below standards during the RI event; see Appendix 3.

**MW-106**

Levels were ND during the 2018 Fourth Quarter event and remain at ND for the 2019 First Quarter event. Levels of VOCs were ND or below standards during the RI event; see Appendix 3.

**MW-107**

Levels were ND during the 2018 Fourth Quarter event and remain at ND for the 2019 First Quarter event. Levels of VOCs were ND or below standards during the RI event; see Appendix 3.

**VOCs SUMMARY**

In general, the low levels of VOCs previously detected in groundwater samples during the RI event have been reduced to levels that are ND, essentially unchanged and below NYSDEC groundwater standards. The exception is in samples from MWR-102 were low-levels of cis-1,2 Dichloroethene estimated in the 1 ppb range are below standards. Periodic detections of MTBE in samples from MWR-102 range from below the standard of 10 ppb to 20.7 ppb. The RI event level of MTBE was 31.0 ppb. Overall, the level of MTBE has decreased.

It should be noted that the majority of the VOCs detected during the RI event were estimated values and or detected in the blank samples. These results establish a trend for periodic low levels of VOCs below standards or at levels that slightly exceed standards in samples from MWR-102. Therefore, VOCs are a secondary COC for post-remediation groundwater monitoring based on low levels and lack of frequency of detections. A copy of the laboratory report for this event is presented in Appendix 4.

**Quality Control Sample Results**

A blind duplicate sample was collected from MW-103 in accordance with the SMP and analyzed for Metals, SVOCs and VOCs. The result is consistent with the level as detected in sample MW-103. Matrix spike and matrix spike duplicates samples were also collected from this monitoring well. An aqueous trip blank sample was provided by the laboratory for VOCs analysis. The results for the trip blank sample were ND, see Appendix 4.



## **Second Quarter 2019**

### **Metals**

Results for metals are similar in comparison to the 2019 First Quarter event as noted below for samples from each monitoring well as summarized in Table 2.

#### **MW-101**

The June 27, 2019 results are compared to the previous results from April 2, 2019. Levels of metals indicate substantial reduction in concentrations. Manganese with a concentration of 587 ppb increased from 412 ppb exceeds the groundwater standard of 300 ppb. Sodium with a concentration of 176,000 ppb was reduced to 132,00 ppb that exceeds the groundwater standard of 20,000 ppb. Iron with a concentration of 9,320 ppb decreased from 10,900 ppb and exceeds the groundwater standard of 300 ppb. Results for other metals have been reduced to non-detect or are below groundwater standards.

#### **WR-101**

Results from Well MWR-101 indicate an increase of Iron from 306 ppb to 4,120 ppb that exceeds the groundwater standard of 300 ppb. The level of Lead increased from non-detect (ND) to 44 ppb that is exceeds the standard of 25 ppb. The level of Manganese decreased 164 ppb to 48.6 ppb that is below the standard of 300 ppb. The level of Selenium remained at ND that is below the standard of 10 ppb. The level of Sodium exceeds the standard of 20,000 ppb and decreased from 3,020,000 ppb to 340,000E ppb (estimated value) for this event. In general, 2019 Second Quarter levels are lower than detected during the 2019 First Quarter event, see Table 2. The types of metals detected has also decreased as compared to the 2009 RI event, see Appendix 3.

#### **MW-102**

Results from Well MW-102 indicate an increase of Barium from 613 ppb to 925 ppb that is below the standard of 1,000 ppb. The level of Iron increased from 9,270 ppb to 46,900 ppb that exceeds the standard of 300 ppb. Lead remained unchanged at ND and is below the standard of 25 ppb. The levels of Manganese increased from 770 ppb to 2,070 that exceeds the standard of 300 ppb. The levels of Selenium increased ND to 18.8J that exceeds the standard of 10 ppb. The level of Sodium exceeds the standard of 20,000 ppb and increased from 1,590,000 ppb to 1,660,000E for this event. Overall, levels of metals detected have increased from the 2019 First Quarter event as compared to the 2019 Second Quarter and are significantly below levels detected during the 2009 RI event, except for Sodium; see Table 2.

#### **MWR-102**

Results indicate a decrease of Iron from 1,210 ppb to ND that is below the standard of 300 ppb. The level of Manganese slightly decreased from 131 ppb to 129 ppb for this event and is below the standard of 300 ppb. The level of Selenium remained unchanged at ND and is below the standard of 10 ppb. The level of Sodium increased from 305,000 ppb to 308,000 ppb for this event and exceeds the standard of 20,000 ppb. Overall, levels of metals detected decreased from 2019 First Quarter to 2019 Second Quarter and are in the range of levels detected during the 2009 RI event; see Table 2.

#### **MW-103**

Results indicate an increase of Iron from 2,250 ppb to 9,140 ppb that exceeds the standard of 300 ppb. The level of Lead decreased from 6.80 ppb to ND and is below the standard of 25 ppb. Manganese increased from 360 ppb to 412 ppb and exceeds the standard of 300 ppb. The level of Selenium increased from ND to 11.3J and exceeds the standard of 10 ppb. The level of Sodium increased from 114,000 ppb to 132,000 ppb for this event and exceeds the standard of 20,000 ppb. Overall, the levels of metals detected increased from the 2019 First Quarter compared to 2019 Second Quarter and are below the range of levels detected during the 2009 RI event; see Table 2.

**MW-105**

Results indicate that Iron remained unchanged at ND that is below the standard of 300 ppb. The level of Lead remained unchanged at ND and is below the standard of 25 ppb. Manganese increased from 48.7 ppb to 95 ppb that is below the standard of 300 ppb. The level of Selenium increased from ND to 14.2J and is below the standard of 10 ppb. The level of Sodium decreased from 94,500 ppb to 88,700 ppb and exceeds the standard of 20,000 ppb. Overall, the levels of metals increased during the 2019 Second Quarter as compared to 2019 First Quarter and are significantly lower compared to the 2009 RI event except for Sodium. The level of Sodium is in the same range as the 2009 RI event. The types of metals detected has also decreased as compared to the 2009 RI event; see Appendix 3 and Table 2.

**MW-106**

Results indicate an increase of Iron from 366 ppb to 448 ppb that exceeds the standard of 300 ppb. The level of Lead remained unchanged at ND and is below the standard of 25 ppb. The level of Selenium remained unchanged at ND that is below the standard of 10 ppb. The level of Sodium increased from 25,100 ppb to 43,100 ppb for this event that exceeds the standard of 20,000 ppb. Overall, the levels of metals slightly increased during the 2019 Second Quarter as compared to 2019 First Quarter and are significantly lower compared to the 2009 RI event. The types of metals detected has also decreased as compared to the 2009 RI event; see Table 2.

**MW-107**

Results indicate a decrease of Iron from 4,310 ppb to 3,810 ppb that exceeds the standard of 300 ppb. Manganese decreased from 418 ppb to 394 ppb that exceeds the standard of 300 ppb. The level of Selenium remained at ND and is below the standard of 10 ppb. The level of Sodium decreased from 56,800 ppb to 54,500 ppb for this event and exceeds the standard of 20,000 ppb. Overall, the levels of metals detected decrease during the 2019 Second Quarter as compared to the 2019 First Quarter and are significantly lower than the 2009 RI event. The types of metals detected has also decreased as compared to the 2009 RI event; see Table 2.

**METALS SUMMARY**

It appears that the levels and types of metals detected during the 2009 RI event have been substantially reduced based on the six (6) post-remediation groundwater monitoring results. This trend of reduction of metals is documented in the 2018 Quarterly monitoring reports and this 2019 First Quarter and the Second Quarterly monitoring report. Overall, there was a slight decrease from the 2019 First Quarter compared to the 2019 Second Quarter. A copy of the laboratory report for this event is presented in Appendix 4.

**Semi-Volatile Organic Compounds (SVOCs)****MW-101**

Levels of SVOCs were ND for 2019 first Quarter and indicate a reduction from low levels of the following estimated concentrations of SVOC's that exceed groundwater standards detected during the previous RI events as listed below.

**MWR-101**

Levels of SVOCs remained unchanged at ND. Bis (2-ethylhexyl) phthalate was detected in this well during the 2009 RI event and 4.0J ppb. Overall, the level of Bis (2-ethylhexyl) phthalate has decrease to ND.

**MW-102**

Levels were unchanged at ND during 2019 First and Second Quarter events. Levels of SVOCs were ND or below standards during the RI event.

**MW-102R**

Levels were unchanged at ND during 2019 First and Second Quarter events. Levels of SVOCs were ND or below standards during the RI event except for detection of Bis (2-Ethylhexyl) Phthalate at 9.0 ppb that slightly exceeded the standard of 5 ppb.

**MW-103**

Levels were unchanged at ND during the 2019 First and Second Quarter events.

Levels of SVOCs slightly exceeded standards during the RI event, see Appendix 3.

**MW-105**

Levels were unchanged at ND during the 2019 First and Second Quarter events. Levels of SVOCs were ND or below standards during the RI event.

**MW-106**

Level of were unchanged at ND during the 2019 First and Second Quarter events.

Levels of SVOCs exceeded standards during the RI event.

**MW-107**

Levels were unchanged at ND during the 2019 First and Second Quarter events. This monitoring well was sampled during the RI event for metals only. Therefore, there are no previous RI event results for SVOCs for this well.

**SVOCs SUMMARY**

In general, the low levels of SVOCs previously detected in groundwater samples during the 2009 RI event have been reduced to levels that are ND and below standards during the 2019 Second Quarter event. It appears that sporadic detections of SVOCs were detected during the RI event (see Appendix C), 2018 Second and 2018 Fourth Quarter events. These results establish a trend for periodic low levels of SVOCs below standards or at levels that slightly exceed standards. Therefore, SVOCs are a secondary COC for post-remediation groundwater monitoring based on low levels and lack of frequency of detections. A copy of the laboratory report for this event is presented in Appendix 4.

**Volatile Organic Compounds (VOCs)****MW-101**

The results for VOCs during the previous RI event was ND, except for and estimated value of 2.0JB ppb of Acetone that was also detected in the VOC trip blank. Results for 2019 First and Second Quarter were ND.

**MW-101R**

The results for low level VOC decreased from 2019 First Quarter to 2019 Second Quarter. The level of cis-1, 2-Dichloroethene decreased from 1.71J to ND and is below the standard of 5 ppb. Overall, this low-level occasional detection of cis-1, 2-Dichloroethene is consistent with levels detected during previous Quarterly events and lower compared to the RI events, see Appendix 3 and 4.

**MW-102**

Levels were ND during 2019 First Quarter event and remain at ND for the 2019 Second Quarter event. Levels of VOCs were ND or below standards during the RI event.

**MW-102R**

Levels of cis-1, 2-Dichloroethene increased from 1.53J ppb during the 2019 First Quarter to 1.01J ppb for 2019 Second Quarter. This value is below the standard of 5 ppb. Methyl tert-butyl Ether (MTBE) was detected with a concentration of 20.7 ppb in the 2019 First Quarter event and has decreased to 13.7 ppb during the 2019 Second Quarter that exceeds the standard of 10 ppb. Levels of cis-1, 2-Dichloroethene at 1.0J ppb and MTBE at 31.0 ppb were detected during the RI event. Therefore, overall the levels of these VOCs have remained the same or decreased.

**MW-103**

Levels were ND during 2019 First and Second Quarter events. Levels of VOCs were ND or below standards during the RI event.

**MW-105**

Levels were ND during the 2019 First and Second Quarter events. Levels of VOCs were ND or below standards during the RI event.

**MW-106**

Levels were ND during the 2019 First Quarter event and slightly increased to 1.88J ppb for 2019 Second Quarter. Levels of VOCs were ND or below standards during the RI event.

**MW-107**

Levels were ND during 2019 First and Second Quarter events. Levels of VOCs were ND or below standards during the RI event.

In general, the low levels of VOCs previously detected in groundwater samples during the RI event have been reduced to levels that are ND, essentially unchanged and below NYSDEC groundwater standards. The exception is in samples from MWR-102 were low-levels of cis-1,2 Dichloroethene estimated in the 1ppb range are below standards. Periodic detections of MTBE in samples from MWR-102 range from below the standard of 10 ppb to 20.7 ppb. The RI event level of MTBE was 31.0 ppb. Overall, the level of MTBE has decreased.

**VOCs SUMMARY**

It should be noted that the majority of the VOCs detected during the RI event were estimated values and or detected in the blank samples. These results establish a trend for periodic low levels of VOCs below standards or at levels that slightly exceed standards in samples from MWR-102 and MW-106. Therefore, VOCs are a secondary COC for post-remediation groundwater monitoring based on low levels and lack of frequency of detections. A copy of the laboratory report for this event is presented in Appendix 4.

**Quality Control Sample Results**

A blind duplicate sample was collected from MW-107. This delicate sample was analyzed for Metals, SVOCs and VOCs. The results for this duplicate sample are consistent with the level as detected in sample MW-107. Matrix spike and matrix spike duplicates samples were also collected from this monitoring well. An aqueous trip blank sample was provided by the laboratory for VOCs analysis. The results for the trip blank sample were ND, see Appendix 4.



### **Third Quarter 2019**

#### **Metals**

Results for metals are similar in comparison to the 2019 Second Quarter event as noted below for samples from each monitoring well as summarized in Table 2 – Groundwater Sample Analysis Summary – Metals.

#### **MW-101**

The October 4, 2019 results are compared to the previous results from June 27, 2019. Levels of metals indicate some increase in concentrations. Manganese with a concentration of 534 ppb decreased from 587 ppb in the Third Quarter 2019 sampling event. The Manganese concentration exceeded the groundwater standard of 300 ppb. Sodium with a concentration of 149,000 ppb in the Third Quarter 2019 sampling event increased from 132,000 ppb. This sodium concentration exceeds the groundwater standard of 20,000 ppb. Iron with a concentration of 10,500 ppb in the Third Quarter sample event increased from 9,320 ppb and exceeds the groundwater standard of 300 ppb. Lead concentrations increased to 173 ppb and exceeded the groundwater standard of 25 ppb. Mercury concentration increased to 3.15 ppb and exceeded the groundwater standard of 0.7 ppb. Results for other metals are below groundwater standards. The 2019 Third Quarter sampling event resulted in Mercury and Sodium concentrations higher than the 2009 RI event, see Appendix 3.

#### **MWR-101**

Results from MWR-101 indicate a decrease of Iron from 4,120 ppb to 1,830 ppb in the 2019 Third Quarter event as compared to the 2019 Second Quarter. The Iron concentration exceeds the groundwater standard of 300 ppb. The level of Lead decreased from 44 ppb to 20.4 ppb. The Third Quarter Lead concentration is below the groundwater standard of 25 ppb. The level of Manganese decreased and remained below the standard of 300 ppb from 48.6 ppb to 27.9 ppb in the Third Quarter event. The level of Selenium remained at ND. The level of Sodium exceeds the standard of 20,000 ppb and decreased from 340,000E ppb to 210,000 ppb (estimated value) for this event. In general, 2019 Third Quarter levels are lower than detected during the 2009 RI event. The types of metals detected has also decreased as compared to the 2009 RI event; see Table 2.

#### **MW-102**

Results from MW-102 indicate an increase of Barium from 613 ppb to 925 ppb in the Third Quarter. This level of Barium is below the standard of 1,000 ppb. The level of Iron increased from 46,900 ppb to 53,000 ppb which exceeds the standard of 300 ppb. Lead increased from ND in the Second Quarter to 9.28J ppb in the Third Quarter which is below the standard of 25 ppb. The levels of Manganese decreased from 2,070 ppb to 1,700 ppb which exceeds the standard of 300 ppb. The levels of Selenium decreased from 18.8J ppb to ND. The level of Sodium exceeds the standard of 20,000 ppb and decreased from 1,660,000E ppb to 187,000 ppb for this event. Overall, levels of metals detected have decreased during the 2019 Third Quarter as compared to the 2019 Second Quarter event and are significantly below levels detected during the 2009 RI event, see Table 2.

#### **MWR-102**

Levels of metals indicate an overall decrease in concentrations. The level of Manganese slightly decreased from 129 ppb to ND for this Third Quarter event. The level of Selenium remained unchanged at ND and is below the standard of 10 ppb. The level of Sodium decreased from 308,000 ppb to 298,000 ppb for the Third Quarter event and exceeds the standard of 20,000 ppb. Results for other metals have been are below groundwater standards. Overall, levels of metals detected decreased from the Second Quarter to the Third Quarter and are in the range of levels detected during the 2009 RI event; see Table 2 and Appendix 3.

#### **MW-103**

Levels of metals indicate slight increase in concentrations. Manganese with a concentration of 278 ppb decreased from 412 ppb in the Third Quarter 2019 sampling event. The Third Quarter Manganese concentration is below the



groundwater exceedance standard of 300 ppb. Sodium with a concentration of 134,000 ppb in the Third Quarter 2019 sampling event increased from 132,00 ppb. This Sodium concentration exceeds the groundwater standard of 20,000 ppb. Iron with a concentration of 3,940 ppb decreased from 9,140 ppb and exceeds the groundwater standard of 300 ppb. Results for other metals are below groundwater standards.

#### **MW-105**

Results indicate that Iron increased from ND to 1,010 ppb in the Third Quarter sampling event and is above the standard of 300 ppb. The level of Lead remained unchanged at ND and is below the standard of 25 ppb. Manganese decreased 95 ppb to 79.3 ppb and is below the standard of 300 ppb. The level of Selenium decreased from 14.2J to ND and is below the standard of 10 ppb. The level of Sodium decreased from 88,700 ppb to 87,300 ppb and exceeds the standard of 20,000 ppb. Overall, the levels of metals decreased during the 2019 Third Quarter and are significantly lower compared to the 2009 RI event except for Sodium. The level of Sodium is in the same range as the 2009 RI event, see Appendix 3. The types of metals detected has also decreased as compared to the 2009 RI event; see Table 2.

#### **MW-106**

Results indicate an increase of Iron from 448 ppb to 3,740 ppb that exceeds the standard of 300 ppb. The level of Lead increased from ND to 14.9 ppb and is below the standard of 25 ppb. The level of Selenium remained unchanged at ND that is below the standard of 10 ppb. The level of Sodium increased from 34,100 ppb to 109,000 ppb for the Third Quarter event that exceeds the standard of 20,000 ppb. Overall, the levels of metals increased during the Third Quarter as compared to the Second Quarter and are significantly lower compared to the 2009 RI event. The types of metals detected has also decreased as compared to the 2009 RI event; see Table 2.

#### **MW-107**

Results indicate a decrease of Iron from 3,810 ppb to 3,300 ppb that exceeds the standard of 300 ppb. Manganese decreased from 394 ppb to 360 ppb in the Third Quarter but exceeds the standard of 300 ppb. The level of Selenium remained at ND and is below the standard of 10 ppb. The level of Sodium increased from 54,500 ppb to 63,100 ppb in the Third Quarter and exceeds the standard of 20,000 ppb. Overall, the levels of metals detected slightly increases during the Third Quarter and are significantly lower than the 2009 RI event. The types of metals detected has also decreased as compared to the 2009 RI event; see Table 2.

#### **METALS SUMMARY**

It appears that the levels and types of metals detected during the 2009 RI event have been substantially reduced based on the seven (7) post-remediation groundwater monitoring results. This trend of reduction of metals is documented in the 2018 Quarterly monitoring reports and this 2019 Second Quarter and the Third Quarterly monitoring report. Overall, there was a slight increase from the 2019 Second Quarter compared to the 2019 Third Quarter.

#### **Semi-Volatile Organic Compounds (SVOCs)**

##### **MW-101**

Levels of SVOCs were unchanged at ND during 2019 Second and Third Quarter events. Levels of SVOCs were ND for 2019 Second Quarter which indicate a reduction from low levels of the following estimated concentrations of SVOC's exceeding groundwater standards during the previous RI event.

**MWR-101**

Levels of SVOCs remained unchanged at ND. Bis (2-ethylhexyl) phthalate was detected in this well during the 2009 RI event at a concentration of 4.0J ppb, see Appendix 3. Overall, the level of Bis (2-ethylhexyl) phthalate has decreased to ND, see Appendix 4.

**MW-102**

Levels were unchanged at ND during the 2019 Second and Third Quarter events. Levels of SVOCs were ND or below standards during the RI event.

**MW-102R**

Levels were unchanged at ND during 2019 Second and Third Quarter events. Levels of SVOCs were ND or below standards during the RI event except for detection of Bis (2-Ethylhexyl) Phthalate at 9.0 ppb that slightly exceeded the standard of 5 ppb.

**MW-103**

Levels were unchanged at ND during the 2019 Second and Third Quarter events. Levels of SVOCs slightly exceeded standards during the RI event.

**MW-105**

Levels were unchanged at ND during the 2019 Second and Third Quarter events. Levels of SVOCs were ND or below standards during the RI event.

**MW-106**

Level of were unchanged at ND during the 2019 Second and Third Quarter events.

Levels of SVOCs exceeded standards during the RI event.

**MW-107**

Levels were unchanged at ND during the 2019 Second and Third Quarter events. This monitoring well was sampled during the RI event for metals only. Therefore, there are no previous RI event results for SVOCs for this well.

**SVOCs SUMMARY**

In general, the low levels of SVOCs previously detected in groundwater samples during the 2009 RI event have been reduced to levels that are ND and below standards during the 2019 Third Quarter event. It appears that sporadic detections of SVOCs were detected during the RI event (see Appendix C), 2018 Second and 2018 Fourth Quarter events. These results establish a trend for periodic low levels of SVOCs below standards or at levels that slightly exceed standards. Therefore, SVOCs are a secondary COC for post-remediation groundwater monitoring based on low levels and lack of frequency of detections. A copy of the laboratory report for this event is presented in Appendix 4.

**Volatile Organic Compounds (VOCs)****MW-101**

The results for VOCs during the previous RI event was ND, except for and estimated value of 2.0JB ppb of Acetone that was also detected in the VOCs trip blank. Results for 2019 Second and Third Quarter were ND.

**MWR-101**

Levels were ND during 2019 Second Quarter event and remain at ND for the 2019 Third Quarter event. Levels of VOCs were ND or below standards during the RI event.

**MW-102**

Levels were ND during 2019 Second Quarter event and remain at ND for the 2019 Third Quarter event. Levels of VOCs were ND or below standards during the RI event.

**MWR-102**

Levels of cis-1, 2-Dichloroethene decreased from 1.01J ppb in the 2019 Second Quarter to ND in the 2019 Third Quarter. This value is below the standard of 5 ppb. Methyl tert-butyl Ether (MTBE) was detected with a concentration of 13.7 ppb during the 2019 Second Quarter and decreased to 11.5 ppb in the 2019 Third Quarter that exceeds the standard of 10 ppb. Levels of cis-1, 2-Dichloroethene at 1.0J ppb and MTBE at 31.0 ppb were detected during the RI event. Therefore, overall the levels of these VOCs have remained the same or decreased.

**MW-103**

Levels were ND during 2019 Second Quarter event and remain at ND for the 2019 Third Quarter event. Levels of VOCs were ND or below standards during the RI event.

**MW-105**

Levels were ND during 2019 Second Quarter event and remain at ND for the 2019 Third Quarter event. Levels of VOCs were ND or below standards during the RI event.

**MW-106**

Levels of Chlorobenzene increased from 1.88J ppb for 2019 Second Quarter to 7.35 ppb for the 2019 Third Quarter. Levels of VOCs were ND or below standards during the RI event.

**MW-107**

Levels of Methylene chloride increased from ND for 2019 Second Quarter to 3.12 ppb for the 2019 Third Quarter that is below the standard of 5 ppb. Levels of VOCs were ND or below standards during the RI event.

**VOCs SUMMARY**

In general, the low levels of VOCs previously detected in groundwater samples during the RI event have been reduced to levels that are ND, essentially unchanged and below NYSDEC groundwater standards. The exception is in samples from MWR-102 with the periodic detections of MTBE in samples ranging from below the standard of 10 ppb to 20.7 ppb. The RI event level of MTBE was 31.0 ppb. Overall, the level of MTBE has decreased.

It should be noted that the majority of the VOCs detected during the RI event were estimated values and or detected in the blank samples. These results establish a trend for periodic low levels of VOCs below standards or at levels that slightly exceed standards in samples from MWR-102 and MW-106. Therefore, VOCs are a secondary COC for post-remediation groundwater monitoring based on low levels and lack of frequency of detections. A copy of the laboratory report for this event is presented in Appendix 4.

**Quality Control Sample Results**

A duplicate sample was collected from MWR-102. This duplicate sample was MW-10X and analyzed for Metals, SVOCs and VOCs. The results for this duplicate sample are consistent with the levels detected in sample MWR-102. Matrix spike and matrix spike duplicates samples were collected from monitoring well MW-107. An aqueous trip blank sample was provided by the laboratory for VOCs analysis. The results for the trip blank sample were ND except for the 3.37 J ppb (estimated) of Methylene chloride, see Appendix 4.



## **Fourth Quarter 2019**

### **Metals**

Results for metals are similar in comparison to the 2019 Third Quarter event as noted below for samples from each monitoring well as summarized in Table 2.

#### **MW-101**

The January 3, 2020 results are compared to the previous results from October 4, 2019. Levels of metals indicate some increases in concentrations. Manganese with a concentration of 577 ppb increased from 534 ppb in the Third Quarter 2019 sampling event. The Manganese concentration exceeded the groundwater standard of 300 ppb. Sodium with a concentration of 149,000 ppb in the Third Quarter 2019 sampling event increased to 155,000 ppb. This sodium concentration exceeds the groundwater standard of 20,000 ppb. Iron with a concentration of 10,500 ppb in the Third Quarter sample event increased to 8,910 ppb and exceeds the groundwater standard of 300 ppb. Lead concentration decreased to ND from 173 ppb detected in the Third Quarter 2019 sampling event and is below the groundwater standard of 25 ppb. Mercury concentration decreased to ND from 3.15 ppb detected in the Third Quarter 2019 sampling event and is below the groundwater standard of 0.7 ppb. Results for other metals are below groundwater standards.

#### **MWR-101**

Results from MWR-101 indicate a decrease of Iron from 1,830 ppb in the Fourth Quarter event to 984 ppm. The Iron concentration exceeds the groundwater standard of 300 ppb. The level of Lead decreased from 20.4 ppb to ND and is below the groundwater standard of 25 ppb. The level of Manganese decreased from 27.9 ppb to 12.3J in the Fourth Quarter event and remained below the standard of 300 ppb. The level of Selenium remained at ND. The level of Sodium exceeds the standard of 20,000 ppb and increased from 210,000 ppb to 878,000 ppb for this event. In general, 2019 Fourth Quarter levels detected are lower than the 2019 Third Quarter and the 2009 RI event. The types of metals detected has also decreased as compared to the 2009 RI event.

In summary, metals concentrations are lower than the 2009 RI event, with the exception of Sodium. The level of Sodium exceeded the groundwater standard, see Table 2.

#### **MW-102**

Results from MW-102 indicate a decrease of Barium from 973 ppb to 696 ppb in the Fourth Quarter. This level of Barium is below the standard of 1,000 ppb. The level of Iron decreased from 53,000 ppb to 21,100 ppb which exceeds the standard of 300 ppb. Lead decreased from 9.28J ppb to ND in the Fourth Quarter which is below the standard of 25 ppb. The levels of Manganese decreased from 1,700 ppb to 1,250 ppb which exceeds the standard of 300 ppb. The levels of Selenium remained ND. The level of Sodium exceeds the standard of 20,000 ppb and increased from 187,000 ppb to 1,860,000 ppb for this event. Overall, levels of metals detected have decreased from the 2019 Third Quarter event and are significantly below levels detected during the 2009 RI event, see Table 2 and Appendix 3.

In summary, metals concentrations are lower than the 2009 RI event, with the exception of the following metals: Calcium, Potassium, Sodium and Thallium. Levels of Iron, Manganese, and Sodium exceed the groundwater standards, see Table 2.

#### **MWR-102**

Levels of metals indicate an overall slight increase in concentrations. The level of Manganese increased from ND to 161 ppb for this event and is below the groundwater standard of 300 ppb. The level of Selenium remained unchanged at ND and is below the standard of 10 ppb. The level of Sodium decreased from 298,000 ppb to 290,000 ppb for the Fourth Quarter event and exceeds the standard of 20,000 ppb. Results for other metals have



been are below groundwater standards. Overall, levels of metals detected decreased and are in the range of levels detected during the 2009 RI event.

In summary, metals concentrations are lower than the 2009 RI event, with the exception of the following metals: Calcium, Magnesium, Manganese, and Sodium. The levels of Sodium exceeded the groundwater standards, see Table 2.

#### **MW-103**

Levels of metals increased in concentrations. The level of Iron in the Fourth Quarter 2019 sampling event increased from 3,940 detected during the Third Quarter to 9,350 ppb and exceeded the groundwater standard of 300 ppb. Manganese increased from 278 ppb to 470 ppb and exceeded the groundwater standard of 300 ppb. Sodium with a concentration of 134,000 ppb increased to 181,000 ppb. This Sodium concentration exceeds the groundwater standard of 20,000 ppb. Results for other metals are below groundwater standards.

In summary, metals concentrations are lower than the 2009 RI event. The levels of Iron, Manganese and Sodium exceeded the groundwater standards, see Table 2.

#### **MW-105**

Results indicate that Iron increased from 1,010 ppb to 13,000 in the Fourth Quarter sampling event and this level exceeded the groundwater standard of 300 ppb. The level of Lead slightly increased from ND to 13.6 ppb and is below the groundwater standard of 25 ppb. Manganese increased from 79.3 ppb to 236 ppb and is below the groundwater standard of 300 ppb. The level of Selenium remained unchanged at ND and is below the standard of 10 ppb. The level of Sodium decreased from 87,300 ppb to 78,700 ppb and exceeds the groundwater standard of 20,000 ppb. Overall, the levels of metals increased during the 2019 Fourth Quarter as compared to the 2019 Third Quarter and are significantly lower compared to the 2009 RI event. The level of Sodium is in the same range as the 2009 RI event. The types of metals detected has also decreased as compared to the 2009 RI event.

In summary, metals concentrations are lower than the 2009 RI event, except for Sodium. The levels of Iron and Sodium exceeded the groundwater standards, see Table 2.

#### **MW-106**

Results indicate an increase of Iron from 448 ppb to 3,740 ppb that exceeds the standard of 300 ppb. The level of Lead increased from ND to 14.9 ppb to 55.4 ppb and exceeded the groundwater standard of 25 ppb. Mercury slightly increased from ND to 0.363 ppb and is below the groundwater standard of 0.7 ppb. The level of Manganese slight decrease from 405 ppb to 403 ppb. The level of Selenium remained unchanged at ND that is below the standard of 10 ppb. The level of Sodium increased from 109,000 ppb to 120,000 ppb for the Fourth Quarter event that exceeds the standard of 20,000 ppb. Overall, the levels of metals increased during the Fourth Quarter as compared to the 2019 Third Quarter and are significantly lower compared to the 2009 RI event. The types of metals detected has also decreased as compared to the 2009 RI event.

In summary, metals concentrations are lower than the 2009 RI event. The levels of Sodium exceeded the groundwater standards, see Table 2.

#### **MW-107**

Results indicate an increase of Iron from 3,300 ppb to 4,540 ppb that exceeds the groundwater standard of 300 ppb. Manganese increased from 360 ppb to 397 ppb in the Fourth Quarter and exceeds the groundwater standard of 300 ppb. The level of Selenium remained at ND and is below the standard of 10 ppb. The level of Sodium increased from 63,100 ppb to 66,300 ppb in the Fourth Quarter and exceeds the standard of 20,000 ppb. Overall, the levels of metals detected slightly increased during the Fourth Quarter and are significantly lower than the 2009 RI event. The types of metals detected has also decreased as compared to the 2009 RI event.



In summary, metals concentrations are lower than the 2009 RI event. The levels of Iron, Manganese and Sodium exceeded the groundwater standards, see Table 2.

### **METALS SUMMARY**

It appears that the levels and types of metals detected during the 2009 RI event have been substantially reduced based on sample results during eight (8) post-remediation Quarterly groundwater monitoring events. This trend of reduction of metals is documented in the 2018 Quarterly monitoring reports and 2019 Quarterly monitoring reports. Overall, there was a slight increase in overall concentrations from the 2019 Fourth Quarter compared to the 2019 Third Quarter.

The most toxic metals are the Resource Conservation and Recovery Act Metals (RCRA 8 Metals) that are included in the metals results for the Quarterly monitoring program. Each of the RCRA 8 Metals exceeded standards during the 2009 RI event and have been substantially reduced to below standards after eight (8) Quarters of post-remediation groundwater monitoring. The table below presents the range for levels of RCRA 8 Metals during the 2009 RI event and current 2019 Fourth Quarter results after eight (8) Quarterly sample events that indicate substantial reductions with each metal below standards, with the exception of Lead.

Range of RCRA 8 Metals Levels 2009 RI Event		Range for 2019 Fourth Quarter levels	703.5 Groundwater Standards
Arsenic	13.5 ppb to 160 ppb	Non-detect (ND)	25 ppb
Barium	320 ppb to 1,840 ppb	ND to 277 ppb	1,000 ppb
Cadmium	5.6 ppb to 6.2 ppb	ND to 10.8 ppb	5 ppb
Chromium	21.5 ppb to 319 ppb	ND	50 ppb
Lead	5 ppb to 6,600 ppb	ND to 55.4 ppb	25 ppb
Mercury	0.93 ppb to 193 ppb	ND to 0.363 ppb	0.7 ppb
Selenium	6 ppb to 21.8 ppb	ND	10 ppb
Silver	2.4 ppb to 16 ppb	ND	50 ppb

### **Semi-Volatile Organic Compounds (SVOCs)**

#### **MW-101**

SVOCs were ND during the 2019 Fourth Quarter event and unchanged based on eight (8) Quarterly monitoring events. These results indicate a reduction from low levels of estimated concentrations of SVOC's exceeding groundwater standards during the previous RI event.

In summary, SVOC concentrations are ND and lower than the estimated low levels detected in the 2009 RI event. SVOCs do not appear to be a contaminant of concern (COC) in the groundwater at the Site due to lack of detections.

#### **MWR-101**

SVOCs were ND during the 2019 Fourth Quarter event and are unchanged based on eight (8) Quarterly monitoring events. Bis (2-ethylhexyl) phthalate was detected in this well during the 2009 RI event at a concentration of 4.0J ppb. Overall, the level of Bis (2-ethylhexyl) phthalate has decrease to ND.

In summary, SVOC concentrations are ND and lower than the estimated low levels detected in the 2009 RI event. SVOCs do not appear to be a contaminant of concern (COC) in the groundwater at the Site due to lack of detections.

**MW-102**

SVOCs were ND during the 2019 Fourth Quarter event and unchanged based on eight (8) Quarterly monitoring events. These results indicate a reduction from low levels of estimated concentrations of SVOC's exceeding groundwater standards during the previous RI event.

In summary, SVOC concentrations are ND and lower than the estimated low levels detected in the 2009 RI event. SVOCs do not appear to be a contaminant of concern (COC) in the groundwater at the Site due to lack of detections.

**MWR-102**

SVOCs were ND during the 2019 Fourth Quarter event and unchanged based on eight (8) Quarterly monitoring events. These results indicate a reduction from low levels of estimated concentrations of SVOC's exceeding groundwater standards during the previous RI event. Levels of SVOCs were ND or below standards during the RI event except for detection of Bis (2-Ethylhexyl) Phthalate at 9.0 ppb that slightly exceeded the standard of 5 ppb

In summary, SVOC concentrations are ND and lower than the estimated low levels detected in the 2009 RI event. SVOCs do not appear to be a contaminant of concern (COC) in the groundwater at the Site due to lack of detections.

**MW-103**

SVOCs were ND during the 2019 Fourth Quarter event and unchanged based on eight (8) Quarterly monitoring events. These results indicate a reduction from low levels of estimated concentrations of SVOC's exceeding groundwater standards during the previous RI event, see Appendix 3.

In summary, SVOC concentrations are ND and lower than the estimated low levels detected in the 2009 RI event. SVOCs do not appear to be a contaminant of concern (COC) in the groundwater at the Site due to lack of detections.

**MW-105**

SVOCs were ND during the 2019 Fourth Quarter event and unchanged based on eight (8) Quarterly monitoring events. These results indicate a reduction from low levels of estimated concentrations of SVOC's exceeding groundwater standards during the previous RI event.

In summary, SVOC concentrations are ND and lower than the estimated low levels detected in the 2009 RI event. SVOCs do not appear to be a contaminant of concern (COC) in the groundwater at the Site due to lack of detections.

**MW-106**

SVOCs were ND during the 2019 Fourth Quarter event and unchanged based on eight (8) Quarterly monitoring events. These results indicate a reduction from low levels of estimated concentrations of SVOC's exceeding groundwater standards during the previous RI event.

**MW-107**

SVOCs were ND during the 2019 Fourth Quarter event and unchanged based on eight (8) Quarterly monitoring events. These results indicate a reduction from low levels of estimated concentrations of SVOC's exceeding groundwater standards during the previous RI event.

In summary, SVOC concentrations are ND and lower than the estimated low levels detected in the 2009 RI event, see Appendix 3. SVOCs do not appear to be a contaminant of concern (COC) in the groundwater at the Site due to lack of detections.



## **SVOCs SUMMARY**

In general, the low levels of SVOCs previously detected in groundwater samples during the 2009 RI event have been reduced to levels that are ND and below standards during the 2019 Fourth Quarter event. It appears that sporadic detections of SVOCs were detected during the RI event, and during the 2018 Second and 2018 Fourth Quarter events. These results establish a trend for periodic low levels of SVOCs below standards or at levels that slightly exceed standards. SVOCs do not appear to be a COC based on low levels and lack of frequency of detections during eight (8) Quarters of post-remediation groundwater monitoring. A copy of the laboratory report for this event is presented in Appendix 4.

## **Volatile Organic Compounds (VOCs)**

### **MW-101**

Results for 2019 Fourth Quarter were unchanged at ND. The results for VOCs during the previous RI event was ND, except for and estimated value of 2.0JB ppb of Acetone that was also detected in the VOCs trip blank.

In summary, VOC concentrations are ND and lower than the estimated low levels detected in the 2009 RI event. VOCs do not appear to be a contaminant of concern (COC) in the groundwater at the Site due to lack of detections.

### **MWR-101**

Results for 2019 Fourth Quarter were unchanged at ND. Levels of VOCs were ND or below standards during the RI event.

In summary, VOC concentrations are ND and lower than the estimated low levels detected in the 2009 RI event, see Appendix C. VOCs do not appear to be a contaminant of concern (COC) in the groundwater at the Site due to lack of detections.

### **MW-102**

Results for 2019 Fourth Quarter were ND. Levels of VOCs were ND or below standards during the RI event.

In summary, VOC concentrations are ND and lower than the estimated low levels detected in the 2009 RI event.

### **MWR-102**

Levels of cis-1,2-Dichloroethene increased from ND to 1.77J (estimated value) in the 2019 Fourth Quarter as compared to the Third Quarter. This value is below the standard of 5 ppb. Methyl tert-butyl Ether (MTBE) increased from 11.5 ppb to 13.9 ppb in the 2019 Fourth Quarter that slightly exceeds the standard of 10 ppb. Levels of cis-1, 2-Dichloroethene at 1.0J ppb and MTBE at 31.0 ppb were detected during the RI event; see Appendix C.

In summary, overall the levels of cis-1, 2-Dichloroethene and MTBE have remained the same or decreased and are sporadically detected during eight (8) Quarterly monitoring events. VOCs are a secondary COC for post-remediation groundwater monitoring based on low levels and lack of frequency of detections.

### **MW-103**

Results for 2019 Fourth Quarter were unchanged at ND. Levels of VOCs were ND or below standards during the RI event. In summary, VOC concentrations are ND and lower than the estimated low levels detected in the 2009 RI event, see Appendix 3 and 4.

### **MW-105**

Results for 2019 Fourth Quarter were ND. Levels of VOCs were ND or below standards during the RI event.

In summary, VOC concentrations are ND and lower than the estimated low levels detected in the 2009 RI event.



### **MW-106**

Levels of Chlorobenzene decreased from 7.35 ppb to 5.48 ppb for the 2019 Fourth Quarter and slightly exceeded the groundwater standard of 5 ppb. Levels of VOCs were ND or below standards during the RI event.

In summary, overall the levels of Chlorobenzene have remained the same or decreased and was sporadically detected during eight (8) Quarterly monitoring events. VOCs are a secondary COC for post-remediation groundwater monitoring based on low levels and lack of frequency of detections.

### **MW-107**

Levels of Methylene chloride increased from ND for 2019 Second Quarter to 3.12 ppb for the 2019 Third Quarter that is below the standard of 5 ppb. Levels of VOCs were ND or below standards during the RI event.

In summary, VOC concentrations are ND and lower than the estimated low levels detected in the 2009 RI event.

### **VOCs SUMMARY**

In general, the low levels of VOCs previously detected in groundwater samples during the RI event have been reduced to levels that are essentially unchanged, and or that slightly exceed groundwater standards. Periodic detections of MTBE in samples ranging from below the groundwater standard of 10 ppb to 20.7 ppb in monitoring well MWR-102. The RI event level of MTBE was 31.0 ppb. The level during Fourth Quarter was 13.6 ppb. Overall, the level of MTBE has decreased. Cis-1, 2-Dichloroethene increased from ND to 1.77J (estimated value) in MWR-102 during the Fourth Quarter. Chlorobenzene decreased from 7.35 ppb to 5.48 ppb in monitoring well MW-106 for the 2019 Fourth Quarter and is consistent with periodic low-level detections during eight (8) Quarters of post-remediation groundwater monitoring results.

It should be noted that the majority of the VOCs detected during the RI event were estimated values and or detected in the blank samples. These results establish a trend for periodic low levels of VOCs below standards or at levels that slightly exceed standards in samples from MWR-102 and MW-106. Therefore, VOCs are a secondary COC for post-remediation groundwater monitoring based on low levels and lack of frequency of detections. A copy of the laboratory report for this event is presented in Appendix 4.

### **Quality Control Sample Results**

A duplicate sample was collected from MW-107. This duplicate sample was MW-10X and analyzed for Metals, SVOCs and VOCs. The results for this duplicate sample are consistent with the levels detected in sample MW-107. Matrix spike and matrix spike duplicates samples were collected from monitoring well MWR-102. An aqueous trip blank sample was provided by the laboratory for VOCs analysis. The results for the trip blank sample were ND, see Appendix 4.

### **GROUNDWATER QUALITY SUMMARY**

Overall, concentrations and frequency of detection of Metals, SVOCs and VOCs are in a general decreasing trend based on Quarterly groundwater monitoring results at the end of eight (8) Quarterly monitoring events compared to July 27, 2009 RI groundwater levels. This decrease represents an expected trend towards lower concentrations due to the installation of the site-wide cover system and storm water collections system that reduces infiltration of runoff and less contact of overburden groundwater with historic fill materials below the cover system that are the source of these contaminants. The following conclusions were made based on these results:

Elevated levels of heavy metals detected during the July 2009 RI event have been significantly reduced to levels below NYSDEC groundwater standards;

Levels of Iron, Manganese, and Sodium have been reduced and exceed groundwater standards;

Metals are considered a COC in the overburden groundwater media as stated in the FER;



Low levels of SVOCs previously detected in groundwater samples during the 2009 RI event have been reduced to levels that are ND and below standards.

SVOCs are a secondary COC for post-remediation groundwater monitoring based on low levels and lack of frequency of detections;

Low levels of VOCs previously detected in groundwater samples during the RI event have been reduced to levels that are ND in the last eight (8) quarterly groundwater sampling events, essentially unchanged and below NYSDEC groundwater standards;

VOCs are a secondary COC for post-remediation groundwater monitoring based on low levels and lack of frequency of detections;

Levels in the bedrock groundwater samples are generally lower levels than detections for the same compounds in the overburden groundwater samples; and

The remedy is effective based on the groundwater sampling results.

## 7.0 OPERATION & MAINTENANCE COMPLIANCE

Operation and maintenance activities were completed at the Site and include inspections of the EC and some repairs to the pavement surface of the cover system. The Annual EC/IC Inspection was completed on January 14, 2020 to assess the general condition of the Site as well as conditions of the cover system. A summary of the conditions and recommendations is provided below.

The following recommendations were noted during the Annual EC Inspection. Overall, all the EC are functional and IC in place for protection of human health and the environment. The following action items for maintenance and repairs were noted from the Annual EC inspection on January 14, 2020:

1. Make repairs to minor potholes/cracks in the existing roadway Cover Type 2 installed in 1998. Asphalt patches required to match material and elevation of existing pavement surface during 2020. Crack sealer needs to be applied to Cover Type 2 areas (pavement roadway areas installed in 1998) where cracking has developed.
2. Remove some vegetation that includes weeds along the fencing of the back lot. It is recommended to manually remove vegetation in place rather than use of herbicides (weed killer).
3. During 2020, repair site security fencing in areas where damaged (dented inward).
4. Make repairs and replace the concrete surface seal and steel well box at monitoring well MW-101 and place a new well cap on MW-103.
5. Bergmann engineer to coordinate these repairs during 2020.

Maintaining the integrity and effectiveness of the EC is based on the results of inspections when needed and the required annual inspections to provide recommendations for making repairs to the cover system as necessary to correct the effects of weathering, settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding the cover system.



## 8.0 CONCLUSIONS AND RECOMMENDATIONS

### 8.1 COMPLIANCE

The requirements dictated in the SMP regarding IC/EC's and the Monitoring Plan were met during the reporting period. The repairs to the cover system did not compromise the integrity of the protectiveness of this EC. The repairs should be made before the end of 2020 to ensure continued integrity of the cover system.

### 8.2 PERFORMANCE AND EFFECTIVENESS OF REMEDY

An evaluation of the components of the SMP during this reporting period indicates that, as of the end date of this report, the IC/EC controls were protective of human health and the environment. Levels of COC in post-remediation groundwater samples have been significantly reduced. Implementation of the monitoring plan sufficiently complied with performance of the remedy.

### 8.3 RECOMMENDATIONS FOR FUTURE PRR

Since, residual contamination remains at the site, applicable site management requirements should be continued. However, since residual contamination at the site is considered low level and or below groundwater standards and has been documented in post-remediation groundwater samples to remain consistent or decreasing over time, it is recommended that Quarterly groundwater monitoring activities be evaluated for potential termination based on eight (8) Quarterly monitoring results completed during 2018 and 2019.

### 8.4 POTENTIAL CHANGE IN USE

There is no potential change in use planned for this Site. A future sale of the site requires a 60-Day Advance Notification of Transfer of Ownership as required by 6NYCRR Part 375-1.11(d) and 375-1.9(f).

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# TABLES

TABLE 1  
 2019 Groundwater Elevations Summary  
 Post-Remediation Quarterly Groundwater Monitoring  
 April 29, 2019 through April 29, 2020  
 Volunteers of America  
 Back Lot Site No. C828126  
 Rochester, New York

Well Name	Total Depth (ft)	Ref. Elev.	Depth to Water 07/27/2009	GW Elev. 07/2009	Depth to Water 4/2/2019	GW Elev. 4/2/2019	Depth to Water 6/28/2019	GW Elev. 6/28/2019	Depth to Water 10/4/2019	GW Elev. 10/4/2019	Depth to Water 1/3/2020	GW Elev. 1/3/2020
MW-101	30.0	481.89	24.48	457.41	15.78	466.11	19.74	462.15	21.49	460.40	21.01	460.88
MWR-101	54.5	481.84	24.80	457.04	19.58	462.26	21.10	460.74	21.95	459.89	21.55	460.29
MW-102	31.0	490.61	23.50	466.59	22.24	468.37	22.67	467.94	23.98	466.18	23.45	467.16
MWR-102	54.0	490.16	31.69	458.47	26.80	463.36	28.37	461.79	29.20	460.96	28.71	461.45
MW-103	44.0	486.34	43.14	443.34	33.06	453.28	36.64	449.70	39.53	446.81	39.03	447.31
MW-105	28.0	483.85	18.41	465.72	17.93	465.92	18.32	465.53	18.73	465.12	18.18	465.67
MW-106	32.0	483.53	25.58	457.59	15.85	467.68	20.56	462.97	22.49	461.04	21.98	461.55
MW-107	44.0	485.17	--	--	29.81	455.36	32.93	452.24	34.92	450.25	34.44	450.73



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TABLE 2  
2019 Groundwater Sample Analysis Summary  
Metals  
Post-Remediation  
Volunteers of America of Upstate New York  
214 Lake Avenue Rochester, New York

Metals Page 1 of 4	VOAMW- 101 (7/27/09)	VOAMW- 101 (4/2/19) 1st Quarter 2019	VOAMW- 101 (6/27/19) 2nd Quarter 2019	VOAMW R-101 (7/27/09)	VOAMWR- 101 (4/2/19) 1st Quarter 2019	VOAMWR- 101 (6/27/19) 2nd Quarter 2019	VOAMW- 102 (7/27/09)	VOAMW- 102 (4/2/19) 1st Quarter 2019	VOAMW- 102 (6/27/19) 2nd Quarter 2019	VOAMW R-102 (7/27/09)	VOAMWR- 102 (4/2/19) 1st Quarter 2019	VOAMWR- 102 (6/27/19) 2nd Quarter 2019	VOAMW- 103 (7/27/09)	VOAMW- 103 (4/2/19) 1st Quarter 2019	VOAMW- 103 (6/27/19) 2nd Quarter 2019	NYSDEC 703.5 Standard
Aluminum	74,700	<100ND	83.6J	120B	88.7J	8,210	19,400	<100ND	454	770	<100ND	<100ND	31,700	86.2J	118	-
Antimony	<b>10B</b>	<60ND	<60 ND	<60ND	<60 ND	<60 ND	0.57ND	<60ND	<60ND	<60ND	<60ND	<60ND	<b>142</b>	<60ND	<60ND	3
Arsenic	<b>144</b>	<10ND	<10ND	<10ND	<10ND	10.9	13.5	<10ND	13.5	<10ND	<10ND	<10ND	<b>99.2</b>	<10ND	<10ND	25
Barium	<b>1,840</b>	169	135	20B	104	<100ND	457	613	925	60B	76.8J	73.3J	<b>1,660</b>	129	191	1,000
Beryllium	6.0	<5ND	<5ND	<5ND	<5ND	<5ND	0.84B	<5ND	<5ND	<5ND	<5ND	<5ND	3.8B	<5ND	<5ND	-
Cadmium	<b>5.6</b>	<5ND	<5ND	<5ND	<5ND	<5ND	0.50B	<5ND	<5ND	<5ND	<5ND	<5ND	4.7B	<5ND	<5ND	5
Calcium	381,000	108,000	111,000	222,000	65,200	7,390	269,000	518,000	585,000	24,100	108,000	102,000	368,000	108,000	107,000	-
Chromium	<b>229</b>	<10ND	11.6	<10ND	<10ND	13.0	25.1	<10ND	<10ND	4B	<10ND	<10ND	<b>121</b>	<10ND	<10ND	50
Cobalt	60	<50ND	<50ND	<50ND	<50ND	<50ND	5.0B	<50ND	<50ND	50ND	<50ND	<50ND	35.7B	<50ND	<50ND	-
Copper	<b>2,050</b>	<40ND	<40ND	5B	<40ND	27.5	55.6	<40ND	<40ND	8B	<20ND	<20ND	<b>8,840</b>	21.9J	<40NDJ	200
Iron	<b>140,000</b>	<b>10,900</b>	<b>9,320</b>	220	<b>306</b>	<b>4,120</b>	<b>50,900</b>	<b>9,720</b>	<b>46,900</b>	<b>1,300</b>	<b>1,210</b>	<100ND	<b>80,500</b>	<b>2,250</b>	<b>9,140</b>	300
Lead	<b>14,100</b>	<10ND	<10ND	5B	<10ND	<b>44</b>	<b>109</b>	<10ND	<10ND	8B	<10ND	<10ND	<b>6,600</b>	6.80	<10ND	25
Magnesium	152,000	27,100	28,300	88,800	20,800	3,850	107,000	165,000	198,000	3,600B	71,500	67,300	84,300	26,000	26,400	-
Manganese	<b>3,840</b>	<b>412</b>	<b>587</b>	78	164	48.6	<b>1,120</b>	<b>770</b>	<b>2,070</b>	14B	131	129	<b>1,060</b>	<b>360</b>	<b>412</b>	300
Mercury	<b>1.87</b>	<0.2ND	<0.2ND	0.20B	<0.2ND	<0.2ND	<b>0.93</b>	<0.20ND	<0.20ND	0.02B	<0.2ND	<0.2ND	<b>193</b>	0.637	0.203	0.7
Nickel	<b>132</b>	<40ND	<40ND	<40ND	<40ND	<40ND	13.8B	<40ND	<40ND	<40ND	<40ND	<40ND	<b>155</b>	<40ND	<40ND	100
Potassium	23,000	9,230	8,280	12,400	8,460	5,420	33,700	48,700	52,600	4,200B	12,600	11,000	18,000	10,200	8,650	-
Selenium	<b>11B</b>	<20ND	<20ND	6B	<20ND	<20ND	1.5ND	<20ND	<b>18.8J</b>	35ND	<20ND	<20ND	<b>11.4B</b>	<20ND	<b>11.3J</b>	10
Silver	16	<10ND	<10ND	<10ND	<10ND	<10ND	2.4B	<10ND	<10ND	<10ND	<10ND	<10ND	12.9	<10ND	<10ND	50
Sodium	<b>125,000</b>	<b>176,000</b>	<b>132,000</b>	<b>336,000</b>	<b>3,020,000</b>	<b>340,000E</b>	<b>499,000</b>	<b>1,590,000</b>	<b>1,660,000E</b>	<b>102,000</b>	<b>305,000</b>	<b>308,000</b>	<b>188,000</b>	<b>114,000</b>	<b>132,000</b>	20,000
Thallium	25ND	<25ND	<25ND	<25ND	<25ND	<25ND	1.3ND	<25ND	21.8J	25ND	<25ND	<25ND	1.3ND	<25ND	<25ND	-
Vanadium	252	<25ND	<25ND	50B	<25ND	17.1	23.3B	<25ND	<25ND	50B	<25ND	<25ND	125	<25ND	<25ND	-
Zinc	3,080	<60ND	<60 ND	143	36.7J	139J	98.8	57.5J	61	915	<60ND	<60ND	4,070	43.8J	52.5J	-

Notes:

1. NA = Not analyzed, ND = Less than laboratory detection limits, J = metal is estimated, - = No standard. **Concentration in bold type indicates detection above New York State Department of Environmental Conservation 703.5 groundwater standards.**
2. Concentrations of metals are expressed in parts per billion (ppb) equivalent to ug/l.
3. Samples collected by GeoQuest Environmental, Inc. on July 27, 2009 (Remedial Investigation) analyzed by Columbia Analytical Services, Rochester, New York (ELAP ID # 10145).
4. Samples collected by Bergmann on April 2, 019 and June 27, 2019 and analyzed by Paradigm Environmental Services, Inc. Rochester, New York (ELAP ID # 10958).
5. NYSDEC groundwater standards 703.5 and June 1998 Division of Technical and Operational guidance series T.O.G.S. 1.1.1 and as amended April 2000.
6. Results shown for July 2009 are from the Remedial Investigation.



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TABLE 2  
2019 Groundwater Sample Analysis Summary  
Metals  
Post Remediation  
Volunteers of America of Upstate New York  
214 Lake Avenue Rochester, New York

Metals Page 2 of 4	VOAMW-105 (7/27/09)	VOAMW-105 (4/2/19) 1st Quarter 2019	VOAMW-105 (6/27/19) 2nd Quarter 2019	VOAMW-106 (7/27/09)	VOAMW-106 (4/2/19) 1st Quarter 2019	VOAMW-106 (6/27/19) 2nd Quarter 2019	VOAMW-107 (7/27/09)	VOAMW-107 (4/2/19) 1st Quarter 2019	VOAMW-107 (6/27/19) 2nd Quarter 2019	NYSDEC 703.5 Groundwater Standards
Aluminum	170,000	79.6J	<100ND	36,900	72.1J	<100ND	52,100	<100 ND	<100 ND	-
Antimony	60ND	<60 ND	<60 ND	9B	<60 ND	<60 ND	<b>154</b>	<60 ND	<60 ND	3
Arsenic	<b>102</b>	<10 ND	<10 ND	<b>44</b>	<10 ND	<10 ND	<b>160</b>	<10 ND	<10 ND	25
Barium	320	<100 ND	<100 ND	790	<100ND	55.5J	<b>1,370J</b>	107	90.6J	1,000
Beryllium	8.9	<5 ND	<5 ND	1.6B	<5 ND	<5 ND	<5 ND	<5 ND	<5 ND	-
Cadmium	3.7B	<5 ND	<5 ND	4.5B	<5 ND	<5 ND	<b>6.2</b>	<5 ND	<5 ND	5
Calcium	1,820,000	117,000	106,000	229,000	45,200	52,700	393,000	219,000	187,000	-
Chromium	<b>177</b>	<10 ND	<10 ND	<b>118</b>	<10 ND	<10 ND	<b>319</b>	<10 ND	<10 ND	50
Cobalt	74	<50 ND	<50 ND	19B	<50 ND	<50 ND	<50 ND	<50 ND	<50 ND	-
Copper	<b>204</b>	<40 ND	<40 ND	<b>1,040</b>	<20ND	<20ND	<b>1,360</b>	<20 ND	<20 ND	200
Iron	<b>210,000</b>	<100 ND	<100 ND	<b>60,000</b>	<b>366</b>	<b>448</b>	<b>127,000</b>	<b>4,310</b>	<b>3,810</b>	300
Lead	<b>327</b>	<10 ND	<10 ND	<b>2,010</b>	<10ND	<10ND	<b>4,230</b>	<10ND	<10ND	25
Magnesium	761,000	128,000	116,000	76,000	10,200	11,900	101,000	30,600	29,300	-
Manganese	<b>3,810</b>	48.7	95	<b>1,690</b>	26.3	76.9	<b>1,920</b>	<b>418</b>	<b>394</b>	300
Mercury	<0.20ND	<0.20 ND	<0.20 ND	<b>1.24</b>	<0.20ND	<0.20ND	<b>29.2</b>	<0.2ND	<0.2ND	0.7
Nickel	<b>171</b>	<40 ND	<40 ND	57	<40 ND	<40 ND	<b>209</b>	<40 ND	<40 ND	100
Potassium	83,500	11,400	9,270	23,200	2,190J	2,350J	20,200J	7,290	6,430	-
Selenium	35ND	<20ND	<b>14.2J</b>	12B	<20ND	<20ND	<b>21.8</b>	<20ND	<20ND	10
Silver	10ND	<10 ND	<10 ND	10ND	<10 ND	<10 ND	<10 ND	<10 ND	<10 ND	50
Sodium	<b>58,700</b>	<b>94,500</b>	<b>88,700</b>	<b>351,000</b>	<b>25,100</b>	<b>34,100</b>	<b>178,000</b>	<b>56,800</b>	<b>54,500M</b>	20,000
Thallium	25ND	<25 ND	<25 ND	25ND	<25 ND	<25 ND	<10 ND	<25 ND	<25 ND	-
Vanadium	180	<25 ND	<25 ND	81	<25 ND	<25 ND	161	<25 ND	<25 ND	-
Zinc	163	<60 ND	49.4J	1,500	<60 ND	<60 ND	3,420	<60 ND	34J	-

Notes:

1. NA = Not analyzed, ND = Less than laboratory detection limits, J = metal is estimated, - = No standard. **Concentration in bold type indicates detection above New York State Department of Environmental Conservation 703.5 groundwater standards.**
2. Concentrations of metals are expressed in parts per billion (ppb) equivalent to ug/l.
3. Samples collected by GeoQuest Environmental, Inc. on July 27, 2009 (Remedial Investigation) and analyzed by Columbia Analytical Services, Rochester, New York (ELAP ID # 10145).
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5. NYSDEC groundwater standards 703.5 and June 1998 Division of Technical and Operational guidance series T.O.G.S. 1.1.1 and as amended April 2000.
6. M= Matrix spike recoveries outside QC limits. Matrix bias indicated.



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TABLE 2  
2019 Groundwater Sample Analysis Summary  
Metals  
Post-Remediation  
Volunteers of America of Upstate New York  
214 Lake Avenue Rochester, New York

Metals Page 3 of 4	VOA MW-101 (7/27/09)	VOA MW- 101 (10/4/19) 3rd Quarter 2019	VOA MW- 101 (1/3/20) 4th Quarter 2019	VOA MWR-101 (7/27/09)	VOA MWR-101 (10/4/19) 3rd Quarter 2019	VOA MWR-101 (1/3/20) 4th Quarter 2019	VOA MW-102 (7/27/09)	VOA MW-102 (10/4/19) 3rd Quarter 2019	VOA MW- 102 (1/3/20) 4th Quarter 2019	VOA MWR-102 (7/27/09)	VOA MWR- 102 (10/4/19) 3rd Quarter 2019	VOA MWR- 102 (1/3/20) 4th Quarter 2019	VOA MW- 103 (7/27/09)	VOA MW-103 (10/4/19) 3rd Quarter 2019	VOA MW- 103 (1/3/20) 4th Quarter 2019	NYSDEC 703.5 Standard
Aluminum	74,700	1,170	<100ND	120B	3,490	1,350	19,400	586	<100ND	770	<100ND	<100ND	31,700	94.8J	<100ND	-
Antimony	<b>10B</b>	<60 ND	<60 ND	<60ND	<60 ND	<60 ND	0.57ND	33.7J	<60ND	<60ND	<60ND	<60ND	<b>142</b>	<60ND	<60ND	3
Arsenic	<b>144</b>	<10ND	<10ND	<10ND	<10ND	<10ND	13.5	<10ND	<10ND	<10ND	<10ND	<10ND	<b>99.2</b>	<10ND	<10ND	25
Barium	<b>1,840</b>	155	157	20B	<100ND	<100ND	457	973	696	60B	66.4J	69.7J	<b>1,660</b>	242	277	1,000
Beryllium	6.0	<5ND	<5ND	<5ND	<5ND	<5ND	0.84B	<5ND	<5ND	<5ND	<5ND	<5ND	3.8B	<5ND	<5ND	-
Cadmium	<b>5.6</b>	<5ND	<5ND	<5ND	<5ND	<5ND	0.50B	<5ND	<5ND	<5ND	<5ND	<5ND	4.7B	<5ND	<5ND	5
Calcium	381,000	116,000	144,000	222,000	6,460	18,300	269,000	63,900	543,000	24,100	101,000	106,000	368,000	127,000	180,000	-
Chromium	<b>229</b>	<10ND	<10ND	<10ND	<10ND	<10ND	25.1	<10ND	<10ND	4B	<10ND	<10ND	<b>121</b>	<10ND	<10ND	50
Cobalt	60	<50ND	<50ND	<50ND	<50ND	<50ND	5.0B	<50ND	<50ND	50ND	<50ND	<50ND	35.7B	<50ND	<50ND	-
Copper	<b>2,050</b>	32.9J	<20ND	5B	<40ND	<40ND	55.6	<40ND	<40ND	8B	<40ND	<40ND	<b>8,840</b>	127	<20ND	200
Iron	<b>140,000</b>	<b>10,500</b>	<b>8,910</b>	220	<b>1,830</b>	<b>984</b>	<b>50,900</b>	<b>53,900</b>	<b>26,100</b>	<b>1,300</b>	<100ND	<100ND	<b>80,500</b>	<b>3,940</b>	<b>9,350</b>	300
Lead	<b>14,100</b>	<b>173</b>	<10ND	5B	20.4	<10ND	<b>109</b>	9.28J	<10ND	8B	<10ND	<10ND	<b>6,600</b>	7.96J	<10ND	25
Magnesium	152,000	27,600	34,800	88,800	2,050J	3,890	107,000	183,000	134,000	3,600B	65,100	66,100	84,300	28,600	39,000	-
Manganese	<b>3,840</b>	<b>534</b>	<b>577</b>	78	27.9	12.3J	<b>1,120</b>	<b>1,700</b>	<b>1,250</b>	14B	<15ND	161	<b>1,060</b>	278	<b>470</b>	300
Mercury	<b>1.87</b>	<b>3.15</b>	<0.2ND	0.20B	0.174J	<0.2ND	<b>0.93</b>	<0.20ND	<0.20ND	0.02B	<0.2ND	<0.2ND	<b>193</b>	0.278	<0.2ND	0.7
Nickel	<b>132</b>	<40ND	<40ND	<40ND	<40ND	<40ND	13.8B	<40ND	<40ND	<40ND	<40ND	<40ND	<b>155</b>	<40ND	<20ND	100
Potassium	23,000	8,290	8,700	12,400	2,580	2,470J	33,700	47,700	42,800	4,200B	10,500	9,710	18,000	8,660	10,200	-
Selenium	<b>11B</b>	<20ND	<20ND	6B	<20ND	<20ND	1.5ND	<20ND	<20ND	35ND	<20ND	<20ND	<b>11.4B</b>	<20ND	<20ND	10
Silver	16	<10ND	<10ND	<10ND	<10ND	<10ND	2.4B	<10ND	<10ND	<10ND	<10ND	<10ND	12.9	<10ND	<10ND	50
Sodium	<b>125,000</b>	<b>149,000</b>	<b>155,000</b>	<b>336,000</b>	<b>210,000</b>	<b>878,000</b>	<b>499,000</b>	<b>187,000</b>	<b>1,860,000</b>	<b>102,000</b>	<b>298,000</b>	<b>290,000</b>	<b>188,000</b>	<b>134,000</b>	<b>181,000</b>	20,000
Thallium	25ND	<25ND	<25ND	<25ND	<25ND	<25ND	1.3ND	58.4	54.5	25ND	<25ND	<25ND	1.3ND	<25ND	<25ND	-
Vanadium	252	<25ND	<25ND	50B	<25ND	<25ND	23.3B	<25ND	<25ND	50B	<25ND	<25ND	125	<25ND	<25ND	-
Zinc	3,080	188	<60ND	143	80	61.8	98.8	65	37.5J	915	43.3	<60ND	4,070	235	38.9J	-

Notes:

1. NA = Not analyzed, ND = Less than laboratory detection limits, J = metal is estimated, - = No standard, E = results estimated. **Concentration in bold type indicates detection above New York State Department of Environmental Conservation 703.5 groundwater standards.**
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TABLE 2  
2019 Groundwater Sample Analysis Summary  
Metals  
Post-Remediation  
Volunteers of America of Upstate New York  
214 Lake Avenue Rochester, New York

Metals Page 4 of 4	VOA MW-105 (7/27/09)	VOA MW-105 (10/4/19) 3rd Quarter 2019	VOA MW-105 (1/3/20) 4th Quarter 2019	VOA MW-106 (7/27/09)	VOA MW-106 (10/4/19) 3rd Quarter 2019	VOA MW-106 (1/3/19) 4th Quarter 2019	VOA MW-107 (7/27/09)	VOA MW-107 (10/4/19) 3rd Quarter 2019	VOA MW-107 (1/3/20) 4th Quarter 2019	NYSDEC 703.5 Groundwater Standards
Aluminum	170,000	387	9,270	36,900	860	2,780	52,100	<100 ND	<100 ND	-
Antimony	<60 ND	<60 ND	<60 ND	9B	<60 ND	<60 ND	<b>154</b>	<60 ND	<60 ND	3
Arsenic	<b>102</b>	<10 ND	<10 ND	<b>44</b>	<10 ND	<10 ND	<b>160</b>	<10 ND	<10 ND	25
Barium	320	<100 ND	<100 ND	790	152	187	<b>1,370J</b>	81.9J	111	1,000
Beryllium	8.9	<5 ND	<5 ND	1.6B	<5 ND	<5 ND	<5 ND	<5 ND	<5 ND	-
Cadmium	3.7B	<5 ND	<5 ND	4.5B	<5 ND	<5 ND	<b>6.2</b>	<5 ND	<5 ND	5
Calcium	1,820,000	110,000	178,000	229,000	116,000	118,000	393,000	186,000	254,000	-
Chromium	<b>177</b>	<10 ND	10.8	<b>118</b>	<10 ND	5.11J	<b>319</b>	<10 ND	<10 ND	50
Cobalt	74	<50 ND	<50 ND	19B	<50 ND	<50 ND	<50 ND	<50 ND	<50 ND	-
Copper	<b>204</b>	<40 ND	<40 ND	<b>1,040</b>	<40ND	25.3	<b>1,360</b>	<40 ND	<40 ND	200
Iron	<b>210,000</b>	<b>1,010</b>	<b>13,000</b>	<b>60,000</b>	<b>3,740</b>	<b>6,310</b>	<b>127,000</b>	<b>3,300</b>	<b>4,540</b>	300
Lead	<b>327</b>	<10 ND	13.6	<b>2,010</b>	14.9	<b>55.4</b>	<b>4,230</b>	<10ND	<10ND	25
Magnesium	761,000	106,000	128,000	76,000	30,700	31,900	101,000	33,400	40,500	-
Manganese	<b>3,810</b>	79.3	236	<b>1,690</b>	<b>405</b>	<b>403</b>	<b>1,920</b>	<b>360</b>	<b>397</b>	300
Mercury	<0.20ND	<0.20 ND	<0.20 ND	<b>1.24</b>	<0.20ND	0.363	<b>29.2</b>	<0.2ND	<0.2ND	0.7
Nickel	<b>171</b>	<40 ND	<40 ND	57	<40 ND	<40 ND	<b>209</b>	<40 ND	<40 ND	100
Potassium	83,500	9,970	13,200	23,200	5,800	9,630	20,200J	7,210	8,280	-
Selenium	<20ND	<20ND	<20ND	12B	<20ND	<20ND	<b>21.8</b>	<20ND	<20ND	10
Silver	<10 ND	<10 ND	<10 ND	<10 ND	<10 ND	<10 ND	<10 ND	<10 ND	<10 ND	50
Sodium	<b>58,700</b>	<b>87,300</b>	<b>78,700</b>	<b>351,000</b>	<b>109,000</b>	<b>120,000</b>	<b>178,000</b>	<b>63,100M</b>	<b>66,300</b>	20,000
Thallium	<25 ND	<25 ND	<25 ND	<25 ND	<25 ND	<25 ND	<25 ND	<25 ND	<25 ND	-
Vanadium	180	<25 ND	13.7J	81	<25 ND	<25 ND	161	<25 ND	<25 ND	-
Zinc	163	<60 ND	138	1,500	1,800	133	3,420	51.3J	33.8J	-

Notes:

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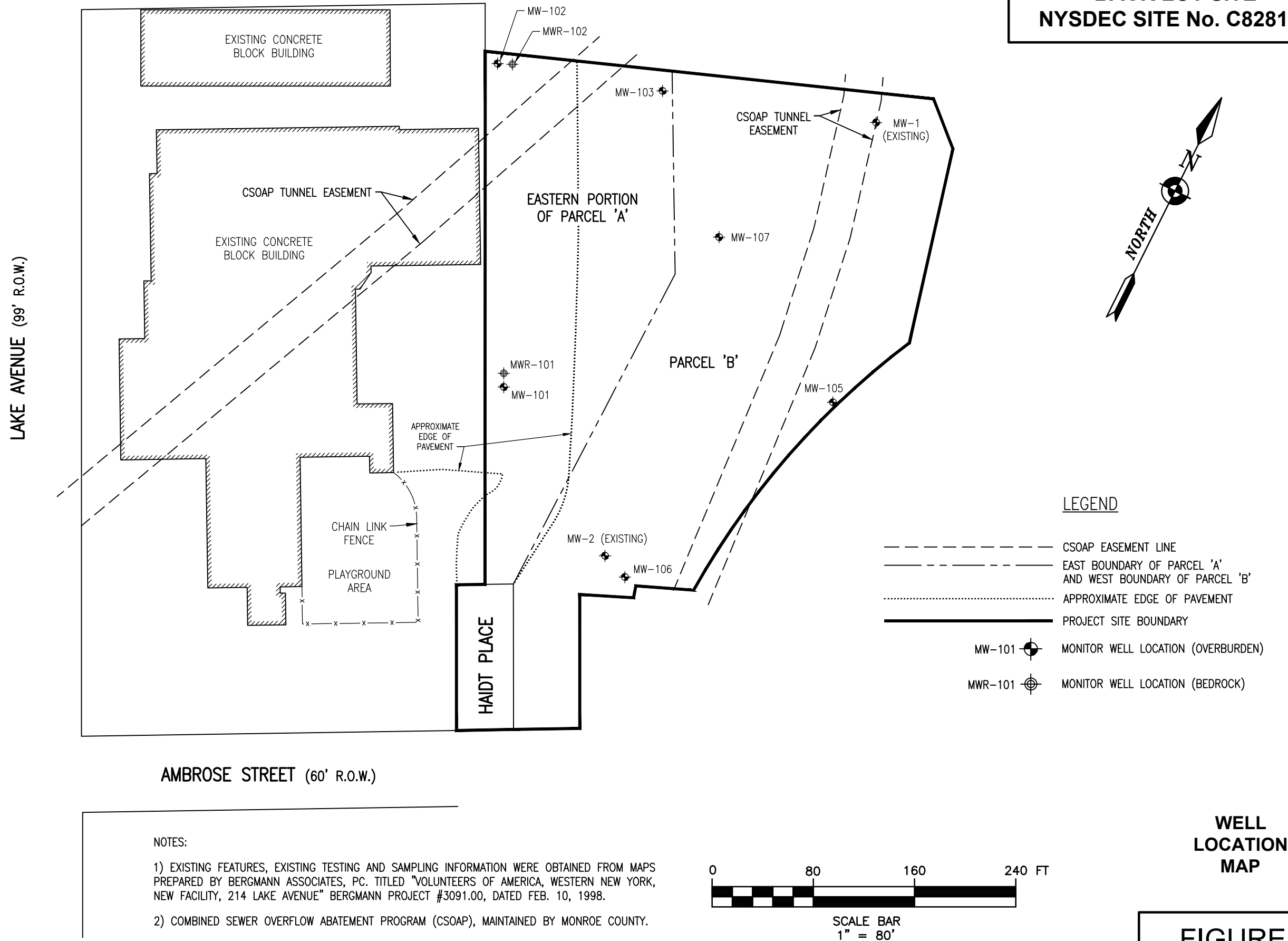


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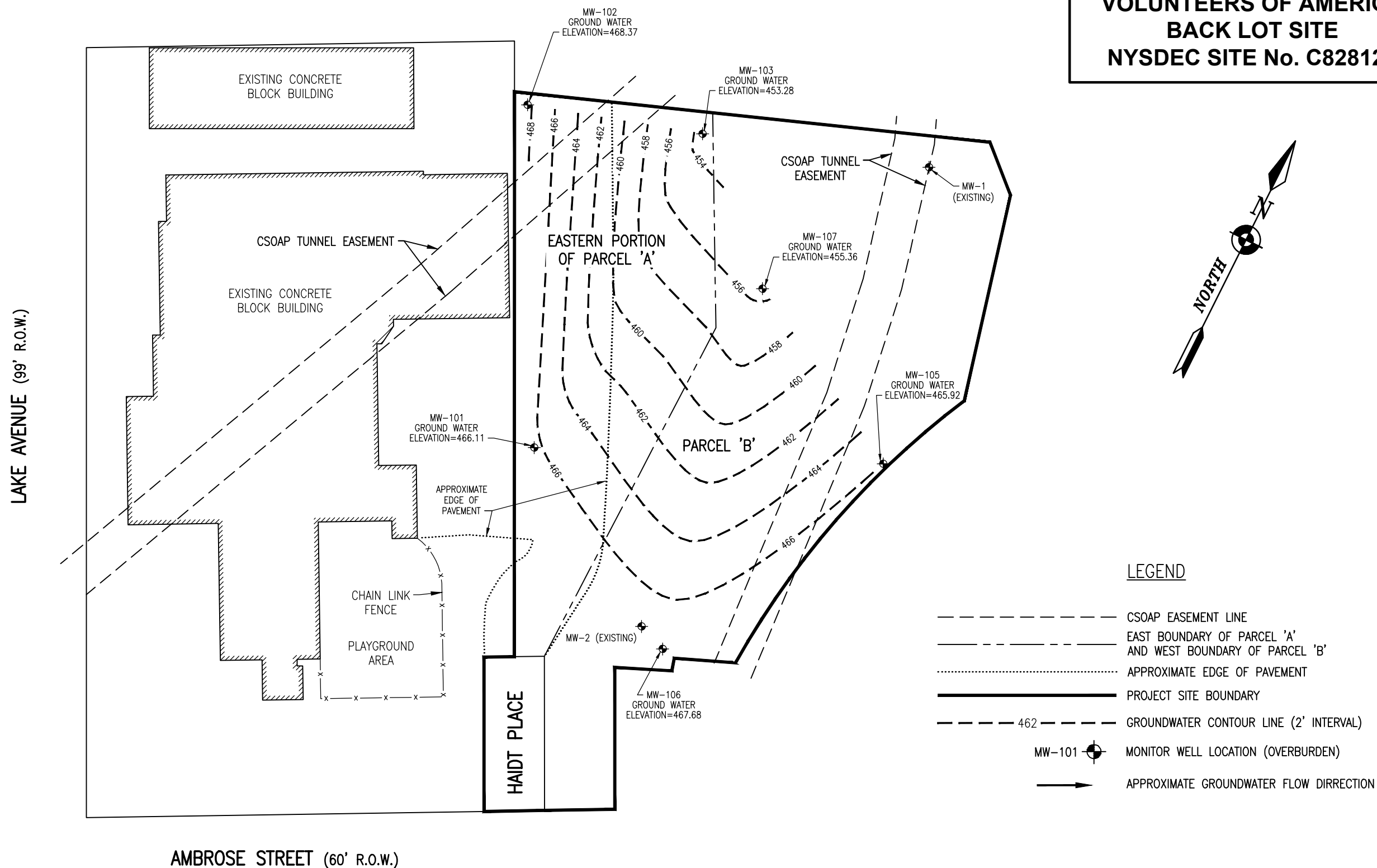
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## FIGURES

**POST REMEDIATION  
GROUNDWATER MONITORING  
VOLUNTEERS OF AMERICA  
BACK LOT SITE  
NYSDEC SITE No. C828126**



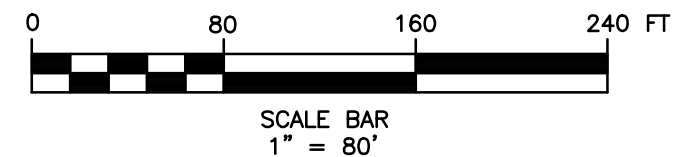
**POST REMEDIATION  
GROUNDWATER MONITORING  
VOLUNTEERS OF AMERICA  
BACK LOT SITE  
NYSDEC SITE No. C828126**



**NOTES:**

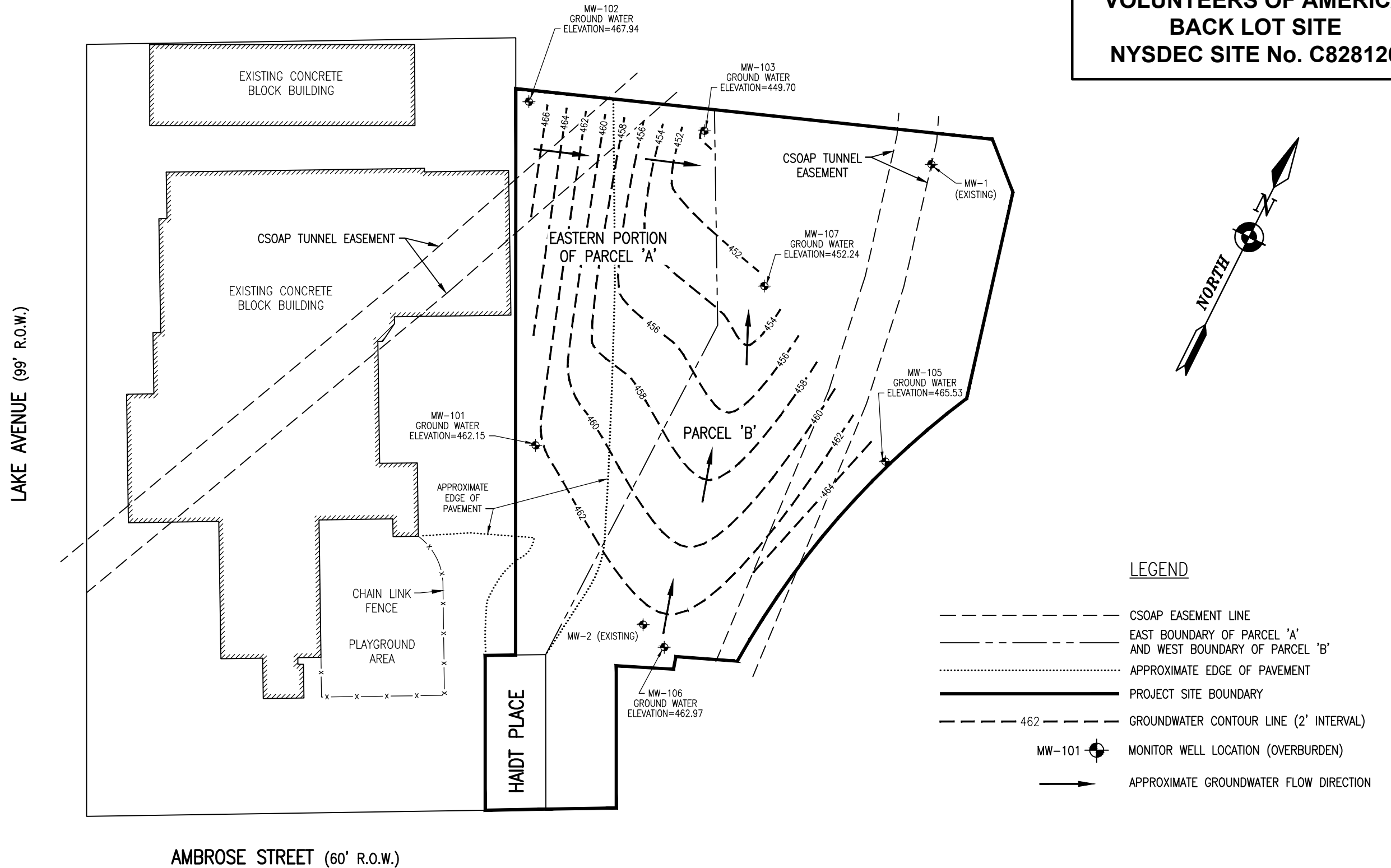
1) EXISTING FEATURES, EXISTING TESTING AND SAMPLING INFORMATION WERE OBTAINED FROM MAPS PREPARED BY BERGMANN ASSOCIATES, PC, TITLED "VOLUNTEERS OF AMERICA, WESTERN NEW YORK, NEW FACILITY, 214 LAKE AVENUE" BERGMANN PROJECT #3091.00, DATED FEB. 10, 1998.

2) COMBINED SEWER OVERFLOW ABATEMENT PROGRAM (CSOAP), MAINTAINED BY MONROE COUNTY.



**FIGURE 2**

**POST REMEDIATION  
GROUNDWATER MONITORING  
VOLUNTEERS OF AMERICA  
BACK LOT SITE  
NYSDEC SITE No. C828126**



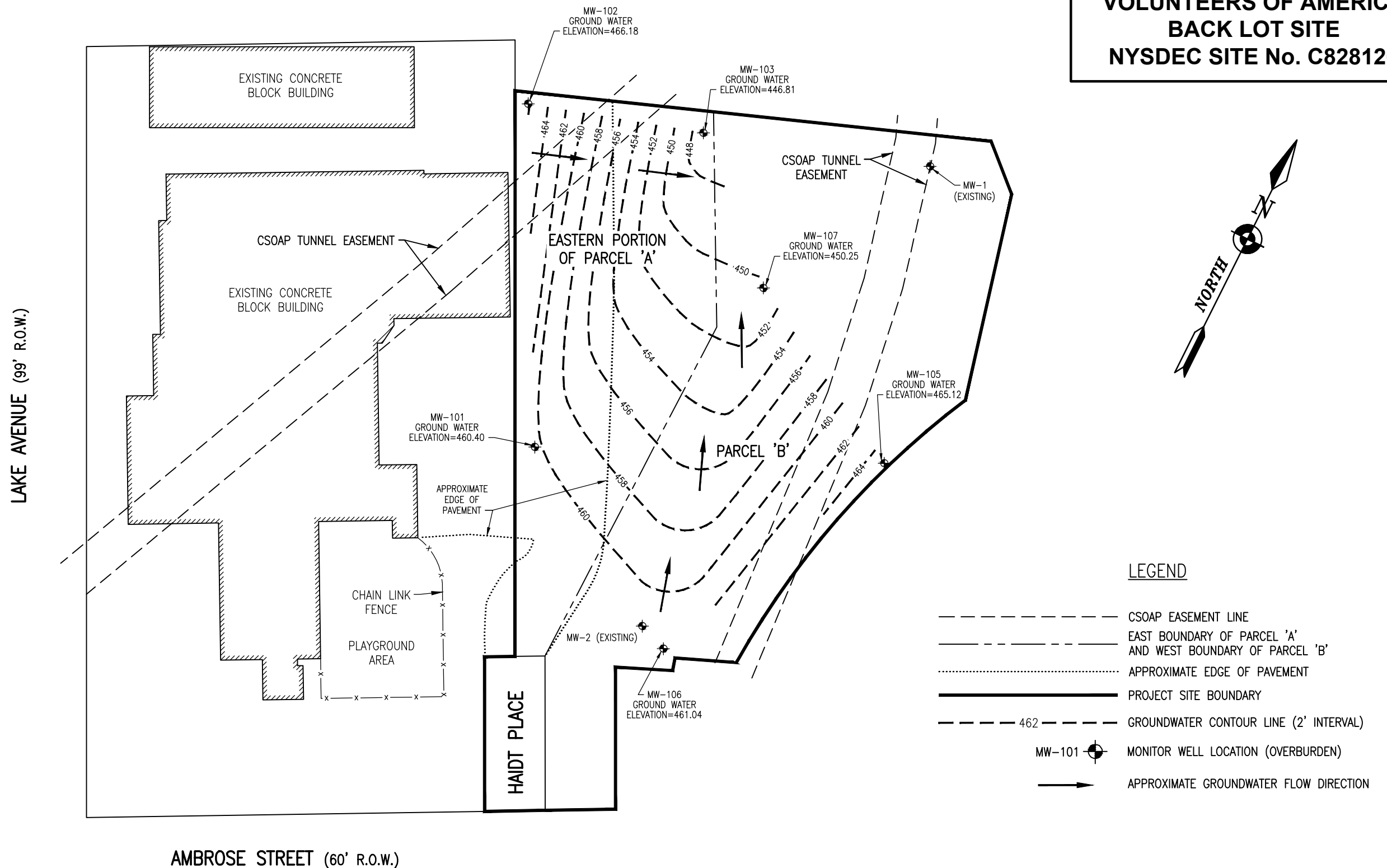
NOTES:

- 1) EXISTING FEATURES, EXISTING TESTING AND SAMPLING INFORMATION WERE OBTAINED FROM MAPS PREPARED BY BERGMANN ASSOCIATES, PC, TITLED "VOLUNTEERS OF AMERICA, WESTERN NEW YORK, NEW FACILITY, 214 LAKE AVENUE" BERGMANN PROJECT #3091.00, DATED FEB. 10, 1998.
- 2) COMBINED SEWER OVERFLOW ABATEMENT PROGRAM (CSOAP), MAINTAINED BY MONROE COUNTY.

**WATER TABLE MAP  
(OVERBURDEN)  
JUNE 27, 2019**

**FIGURE 3**

**POST REMEDIATION  
GROUNDWATER MONITORING  
VOLUNTEERS OF AMERICA  
BACK LOT SITE  
NYSDEC SITE No. C828126**

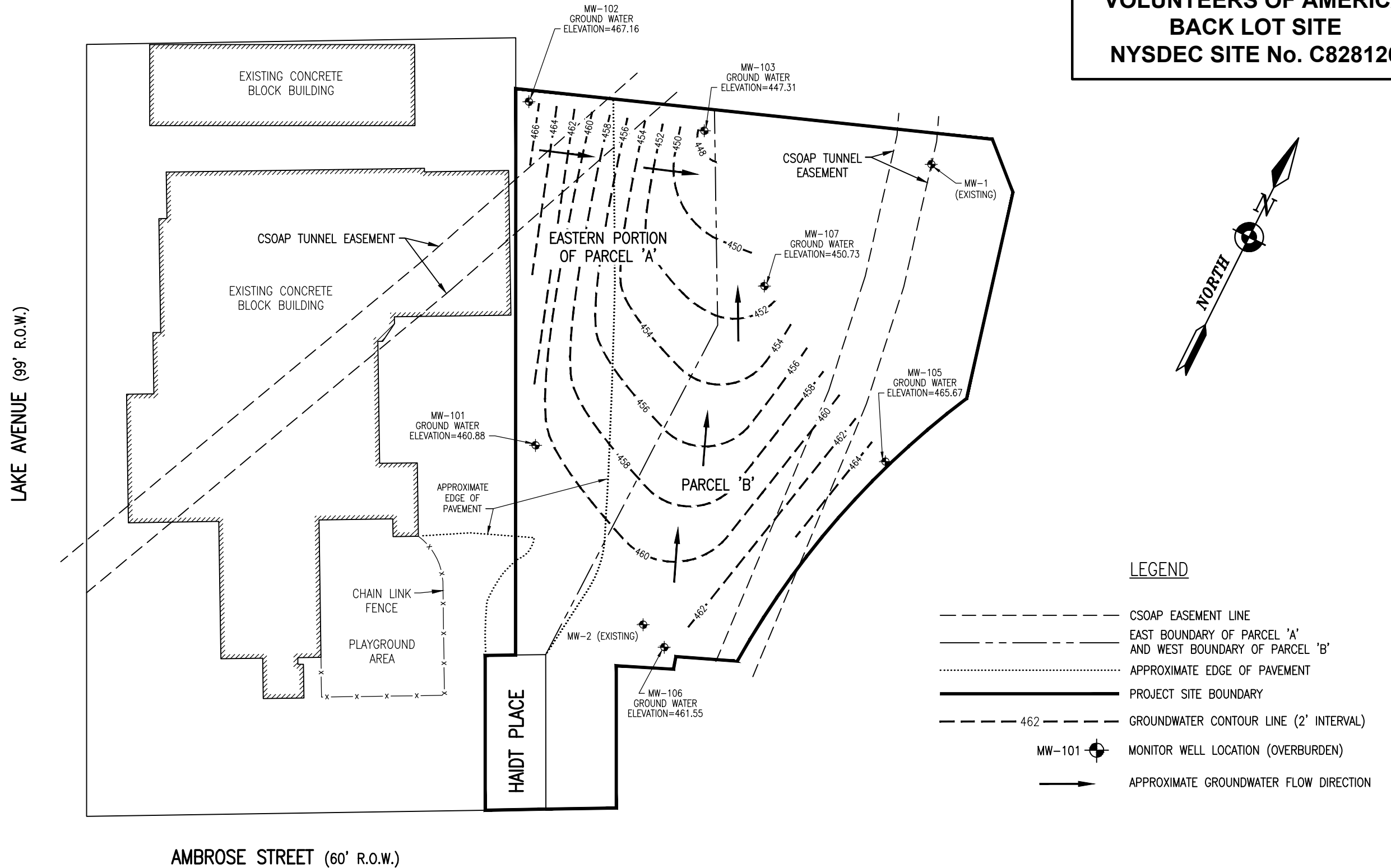


NOTES:

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- 2) COMBINED SEWER OVERFLOW ABATEMENT PROGRAM (CSOAP), MAINTAINED BY MONROE COUNTY.

**FIGURE 4**

**POST REMEDIATION  
GROUNDWATER MONITORING  
VOLUNTEERS OF AMERICA  
BACK LOT SITE  
NYSDEC SITE No. C828126**

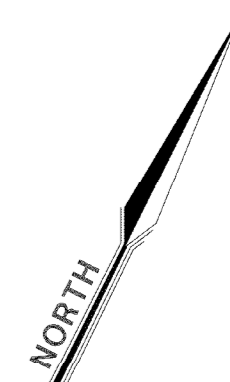


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- 1) EXISTING FEATURES, EXISTING TESTING AND SAMPLING INFORMATION WERE OBTAINED FROM MAPS PREPARED BY BERGMANN ASSOCIATES, PC, TITLED "VOLUNTEERS OF AMERICA, WESTERN NEW YORK, NEW FACILITY, 214 LAKE AVENUE" BERGMANN PROJECT #3091.00, DATED FEB. 10, 1998.
- 2) COMBINED SEWER OVERFLOW ABATEMENT PROGRAM (CSOAP), MAINTAINED BY MONROE COUNTY.

**WATER TABLE MAP  
(OVERBURDEN)  
JANUARY 3, 2020**

**FIGURE 5**



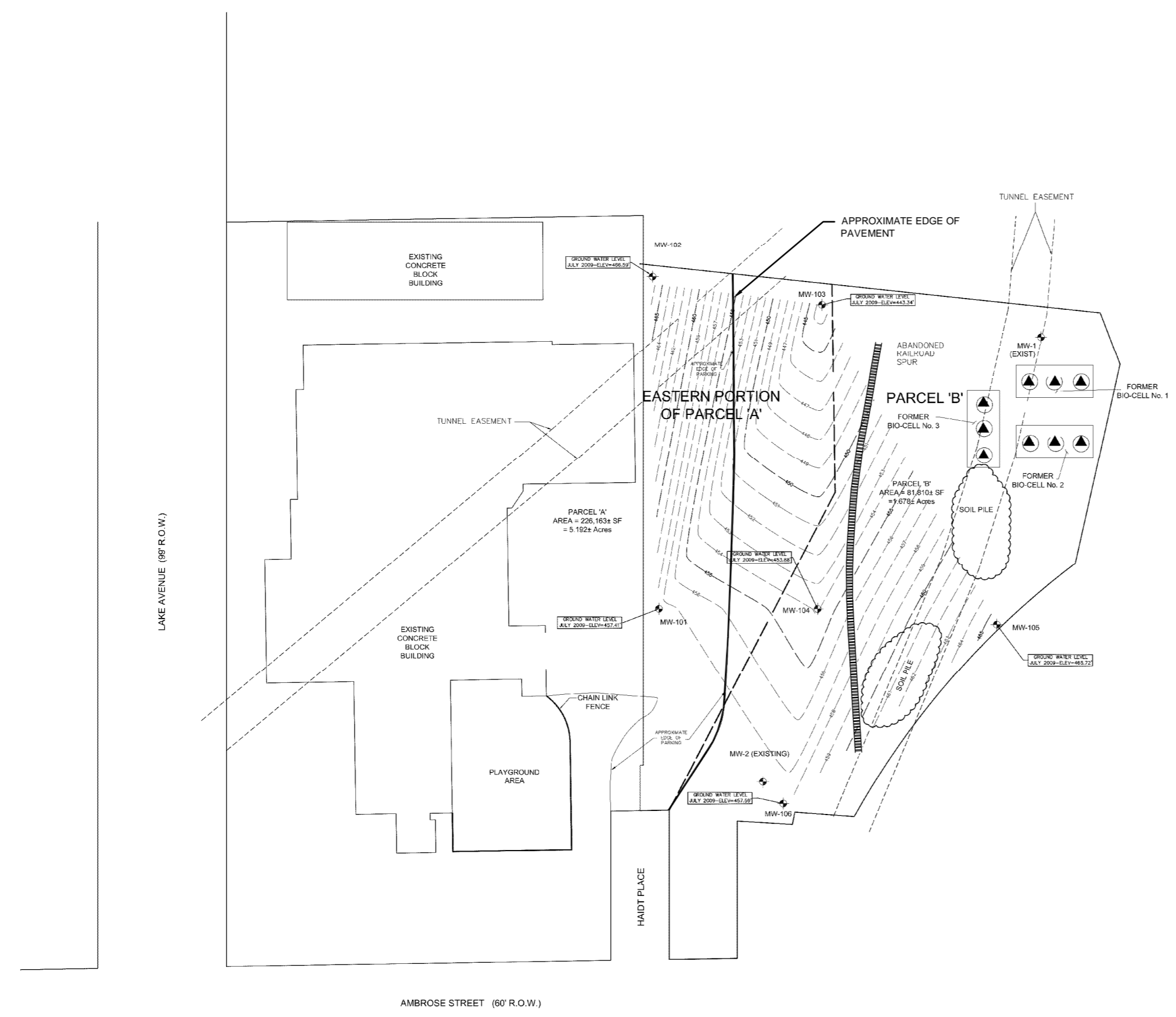
**NOTES:**  
1. GROUNDWATER LEVEL INFORMATION COLLECTED FROM MONITOR WELLS ON JULY 27, 2009.

- LEGEND:**
- EXISTING BUILDING
  - - - EAST BOUNDARY OF PARCEL 'A' AND WEST BOUNDARY OF PARCEL 'B'
  - BIO-CELL
  - ~ SOIL PILE
  - ⊙ MONITOR WELL LOCATION
  - ||||| ABANDONED RAILROAD SPUR
  - APPROXIMATE EDGE OF PAVEMENT

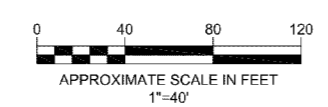


**GROUND WATER CONTOUR MAP**  
JULY 27, 2009  
FOR  
REMEDIAL INVESTIGATION  
EASTERN PORTION OF PARCEL A AND PARCEL B  
214 LAKE AVENUE  
ROCHESTER, NEW YORK  
DECEMBER 15, 2009

**FIG. 6**



EXISTING FEATURES, EXISTING TESTING AND SAMPLING INFORMATION WERE OBTAINED FROM MAPS PREPARED BY BERGMANN ASSOCIATES, PC, TITLED "VOLUNTEERS OF AMERICA, WESTERN NEW YORK, NEW FACILITY, 214 LAKE AVENUE" BERGMANN PROJECT #3091.00, DATED FEB. 10, 1998.





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ARCHITECTS ENGINEERS PLANNERS

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## APPENDIX 1



February 26, 2020

Ms. Charlotte Theobald  
Project Manager  
New York State Department of Environmental Conservation  
6274 East Avon-Lima Road  
Avon, New York 14414

Re: Annual Engineering Controls Inspection Report  
Volunteers of America - Back Lot Site  
214 Lake Avenue and 18 Ambrose Street  
NYSDEC Site # C828126  
Rochester, New York

Dear Ms. Theobald:

Bergmann completed an annual inspection of the physical engineering controls (EC) on January 14, 2020. This visual inspection of EC was completed in general accordance with the Maintenance Plan in Appendix 4 of the Site Management Plan (SMP). This annual EC included visual observation for inspection of the following: site-wide engineered cover system (cover system), security fencing, monitoring well condition, and storm water collection system at the Volunteers of America Back Lot Site. The annual inspection of EC was completed in accordance with the requirements of Decision Document and SMP. This inspection is part of maintenance activities related to post-remediation tasks to ensure the integrity of the cover system, security fencing and storm water collection system occupying the area over the remaining contaminated soil and groundwater on-site. At the time of this inspection all the Institutional controls that include the environmental easement were in place as certified in the SMP.

The objectives of the annual inspection are to observe that:

- The cover system is performing the function of properly capping subsurface soils;
- Site storm water collection system is functioning as designed;
- Security fencing is in place and free of significant damage;
- The EC is functioning as intended for protection of human health and the environment.

The cover system over the contaminated Historic fill materials (contaminated soils) and groundwater serve as a barrier to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health and the environment. The cover system also acts as a partial infiltration barrier to minimize future soil-to-groundwater contamination migration that would further impact groundwater. Based on the future restricted residential or commercial use of the property. The cover system should function as intended unless disturbed. The cover system was installed in the back lot area in 2016 and in the Haidt Place right of way during 2017, existing cover system that is roadway / parking areas was installed in 1998. Therefore, the area for EC is the entire Site, see Figure 4 from the Final Engineering report.

Maintaining the integrity and effectiveness of the EC is based on the results of inspections when needed and the required annual inspections to provide recommendations for making repairs to the cover system as necessary to correct the effects of weathering, settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding the cover system. Annual inspection was made on the items noted below and recorded on the



attached inspection forms. This inspection provides recommendations so that maintenance and repairs can be performed before damage occurs that may impact the integrity and effectiveness of the cover system. The EC conditions / issues are noted below based on the initial inspection for elements of the cover system as described below:

Pavement Surface: The entire pavement surface of Cover Type 1 asphalt pavement/millings, including the final (top) surface and side-slopes (pavement millings) was installed in 2016. The surface was inspected for settlement, subsidence, cracks, displacement and presence of vegetation. Cracks and settlement were not observed on Cover Type 1, see photographs. The existing roadway (Cover Type 2) and parking areas that were installed in 1998 as part of the cover system were also inspected for the same conditions. Several areas on the pavement surface of Cover Type 2 are cracked and have potholes that have been repaired during 2018 and 2019, see attached photographs.

Grass Cover: The limited grass cover areas of Cover Type 3 (Landscaped lawn) were inspected for erosion, displacement, vegetation other than grasses. The integrity of the grass landscaped Cover Type 3 in parking lot islands and within curbed / planter areas is in good condition. Areas of Cover Type 3 along the west side of the Haidt place Right of Way is in good condition, see photographs.

Final Cover Surface: The final cover surface was inspected and ponding of water or flat areas was not observed. This inspection was on the day after a rain/snow melt event. There was no apparent settlement, subsidence, erosion, depressions or flat areas. Ponding of water was not observed on the cover system, see photographs.

Erosion Damage Repair: The roadway pavement along Haidt Place has cracks in the asphalt that require repairs by means of sealing. Repairs by placement of asphalt and compacting the material in-kind to design grade/specifications were completed in 2019, see photographs. Sealer on cracks is required in Cover Type 2 areas shown in photographs. The sealer installed during 2016 is in good condition. Follow-up monitoring of the repaired area will be conducted to ascertain the integrity of the repair. Erosion along the west side of the Haidt Place ROW in the landscaped lawn area was not observed, see photographs.

Settlement, Subsidence, and Displacement: Evidence of settlement, subsidence, or displacement of the cover system was not observed, see Photographs.

Cover System Surface: Evidence of ponding water on the cover system (cap surface) was not observed, see photographs.

Groundwater Monitoring System: The groundwater monitoring system was inspected for the general integrity of the wells, well casings and well protective casings during the inspection of the cover system. The steel cover of the protective casing for monitoring well MW-101 was bent into the well during 2018 and repaired for sampling access to this well during 2019. However, the concrete surface seal and steel well box needs to be removed. Then re-installed, see photographs. The following monitoring wells need repairs or new caps:

- MW-101 requires repairs for a new concrete surface seal and new well protective roadway box; and
- MW-103 needs a new well cap.

Storm water Collection System: This inspection was made on the day after a rain/snow melt event. The surface drainage system of the storm water collection system was inspected for erosion, integrity of manholes/catch basins, ponding, and accumulated sediment. The low areas of the cover system pavement surface are designed to route surface run-off to the catch basins of the storm water collection system below the cover system in the



fenced area of the back lot. There was no observed collection of sediments in the catch basins/manholes. Water was observed moving through the manholes. Ponding of water on the surface of cover system was not observed.

Security Fencing: The majority of the Site is fenced to reduce access to the back lot Cover Type 1 area, storm water collection system and monitoring wells. The fence height ranges from 8 foot and 6 foot along the perimeter of this area. The roadway, parking lot areas and grass cover/pavement cover along the Haidt Place right-of way are not fenced. One area of the fence is damaged near the southern end of the back lot area. This fence damage requires repair. Observed that most of the vegetation was removed from the fenced areas along Covers Type 1 of the back lot, see photographs. Three abandoned tires were removed from the fenced area of the back lot and properly disposed by VOA.

Overall, all the EC are functional and IC in place for protection of human health and the environment. The following action items for maintenance and repairs were noted from the Annual EC inspection on January 14, 2020:

1. Make repairs to minor potholes / cracks in the existing roadway Cover Type 2 installed in 1998. Asphalt patches required to match material and elevation of existing pavement surface during 2020. Crack sealer needs to be applied to Cover Type 2 areas (pavement roadway areas installed in 1998) where cracking has developed.
2. Remove some vegetation that includes weeds along the fencing of the back lot. It is recommended to manually remove vegetation in place of use of herbicides (weed killer).
3. During 2020, repair site security fencing in areas where damaged (dented inward).
4. Make repairs and replace the concrete surface seal and steel well box at monitoring well MW-101 and place a new well cap on MW-103.
5. Bergmann engineer to coordinate these repairs during 2020.

If you have questions, please contact me at (607) 333-3120.  
Bergmann

Sincerely,

Robert Switala, P. E.



Attachments: Annual Maintenance Inspection Form, Figure 4, and Photographs

### Annual Maintenance Inspection Form

Name(s) of Inspectors: ROBERT SWITALA, PE & STEVE DEMEO

Date of Inspection: 1/14/2020

Location of the permeable pavement facility: 18 AMBROSE ST / 214 LAKE AVE

Surface/wearing course type: ASPHALT PAVEMENT, GINDER COURSE

Address or Intersection: \_\_\_\_\_

Age of permeable pavement facility: COVER TYPE 1 - 3 YRS, 5 MONTHS (BACKLOT) 2 YRS, 9 MONTHS (HARD PACE)

Permeable pavement facility area: APPROX. 3 ACRES

COVER TYPE 2 - 21 MONTHS  
COVER TYPE 3 - 27 MONTHS

Site Sketch (include curbs, islands, trees, north arrow, etc.)  
or insert Photographs from inspection date.

SEE ATTACHED PHOTOS AND SITE MAP

Based on visual assessment of the site, answer the following questions and take photographs of the site:

Surface/Wearing Course

1. Are there indications of any of the following on the surface of the permeable pavement facility? (If yes, mark on site sketch)

- ☐ Excessive sediment
- ☐ Moss growth
- ☒ Cracks, trip hazards, or concrete spalling
- ☐ Trash and debris
- ☐ Leaf accumulation
- ☐ Settlement of surface
- ☐ Other: \_\_\_\_\_
- ☐ None

2. Is there ponding on the surface of the permeable pavement? ☐ Yes ☒ No

If yes, describe the potential reasons for ponded water below (leaf or debris build up, non-functional underdrain, groundwater input, illicit connection, inadequate capacity in facility, etc.)

Notes and or Photographs from inspection date.

SEE ATTACHED PHOTOS :

- MW 101 NEEDS NEW CONCRETE COLLAR & CAP TO BE RESET
- EXTENSIVE CRACKING THROUGHOUT COVER TYPE 2 AREA - ASPHALT PAVEMENT INSTALLED IN 1998.
- POT HOLES IN HANDY PLACE/ENTRANCE DRIVE PAVEMENT HAVE BEEN PATCHED AND REPAIRED.
- GRASS COVER TYPE 3 IN GOOD CONDITION - NO BARE SPOTS OBSERVED
- SNOW PILE TO BE REMOVED TO ALLOW GATE TO BE FULLY CLOSED AND LOCKED.
- SITE FENCE IN GOOD CONDITION, REPAIR NEEDED TO AREA WHERE FENCE IS DAMAGED.
- MANHOLE AND CATCH BASINS IN GOOD CONDITION. NO DEBRIS OBSERVED.
- COVER TYPE 1 ASPHALT IN VERY GOOD CONDITION. NO CRACKS, SPALLS OR WEAR OBSERVED.
- SOME VEGETATION BETWEEN FENCE AND CAP NEEDS TO BE REMOVED.

#### Inlets/Outlets/Pipes

3. How many inlet pipes are present? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☒ 5 ☐ > 5

4. Are any of the inlet pipes clogged? (If yes, mark the location on your site sketch and fill in the boxes below with the cause of the clogging (e.g., debris, sediment, vegetation, etc.)) ☒ No ☐ Partially ☐ Completely ☐ NA

5. Are any of the inlet pipes altered from the original design or otherwise in need of maintenance? (If yes, write in reason: frost heave, vandalism, unknown, etc.)

NO - INLETS APPEAR TO BE FUNCTIONING PROPERLY  
Inlet No.                  Inlet No.                  Inlet No.

Partly  
clogged  
Completely  
Clogged  
Reason for  
Maintenance

6. Are any overflow, underdrains, raised subsurface overflow pipes, or outlet structures clogged?

☒ No ☐ Partially ☐ Completely ☐ NA

a. If yes, mark the location on your site sketch and fill in the boxes below with the cause of the clogging (e.g., debris, sediment, vegetation, moss, etc.)

b. Are any of the overflow structures altered from the original design or otherwise in need of maintenance? (If yes, write in reason: frost heave, vandalism, unknown) NO

NO INLETS REQUIRE MAINTENANCE OR REPAIR

Inlet No.      Inlet No.      Inlet No.

Partly  
clogged  
Completely  
Clogged  
Reason for  
Maintenance

Observation Port (if present)

7. Is water remaining in the storage aggregate longer than anticipated by design after the end of a storm? NO - WATER APPEARS TO BE DRAINING

☐ Yes ☒ No ☐ Unknown

a. If yes, identify potential cause of extended ponding and mark the location of observed extended ponding on your site sketch.

Summary

8. Inspector's Recommendations. When is maintenance needed?

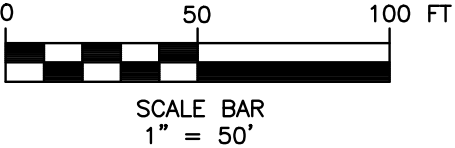
- APPLY SEAL COAT TO CONCRETE TYPE 2 ASPHALT DRIVEWAY ALONG ENTRANCE ROAD. REPAIR FENCE,  
☐ Immediately      REPAIR MONITORING WELL, REMOVE VEGETATION / WEEDS GROWING  
☐ Within a month or two      NEAR CONCRETE TYPE 1,  
☒ Within a year  
☐ No sign that any maintenance is required

9. Summarize the results of this inspection and write any other observations in the box below  
Summary and other observations or Photographs from  
inspection date.

SEE ATTACHED PHOTOS AND INSPECTION LETTER

Cover Type	Cross-Section
<b>Cover Type 1:</b> Asphalt pavement and Asphalt millings constructed over the majority of the Site (Installed 2016) and the western right of way at Haidt Place 2017.	2016 Installation: A subbase-recycled concrete, minimum of 18 inches and maximum of 27 inches compacted above black geo-textile demarcation layer. Binder 4-inches upper surface of cover system (flat surface) installed. Asphalt millings approximately 4 to 6 inches thick compacted on slope perimeter of cover system.  2017 Haidt Place:2- foot thick Crusher Run #2 with 4-inches of asphalt cover placed along the eastern right of way.
<b>Cover Type 2:</b> Existing Asphalt Pavement roadway, concrete walkway and parking areas (Installed 1998)	Top Course-1.5 inches Binder-3.5 inches Base Course-4 inches Subbase-12 inches Placed for roadways and parking areas along the west side of the Site. Pavement cracks sealed in 2016.
<b>Cover Type 3:</b> Landscaped lawn (Installed1998) and in the west side of the Haidt Place right of way 2017.	1998 Landscaped Lawn: Existing grass covered topsoil 2-inches, with 12 inches soil cover thickness (min) placed along the southwest side of the Site near VOA children's playground in 1998.  2017 Haidt Place: 2- foot of imported Crusher Run #2 with 4 to 6-inches of top soil place in 2017 along the west side of Haidt Place.

\* Recycled concrete thickness varies due to underlying impacted re-used Site soils.  
\* Demarcation layer represented by orange snow fence on Haidt Place 2017

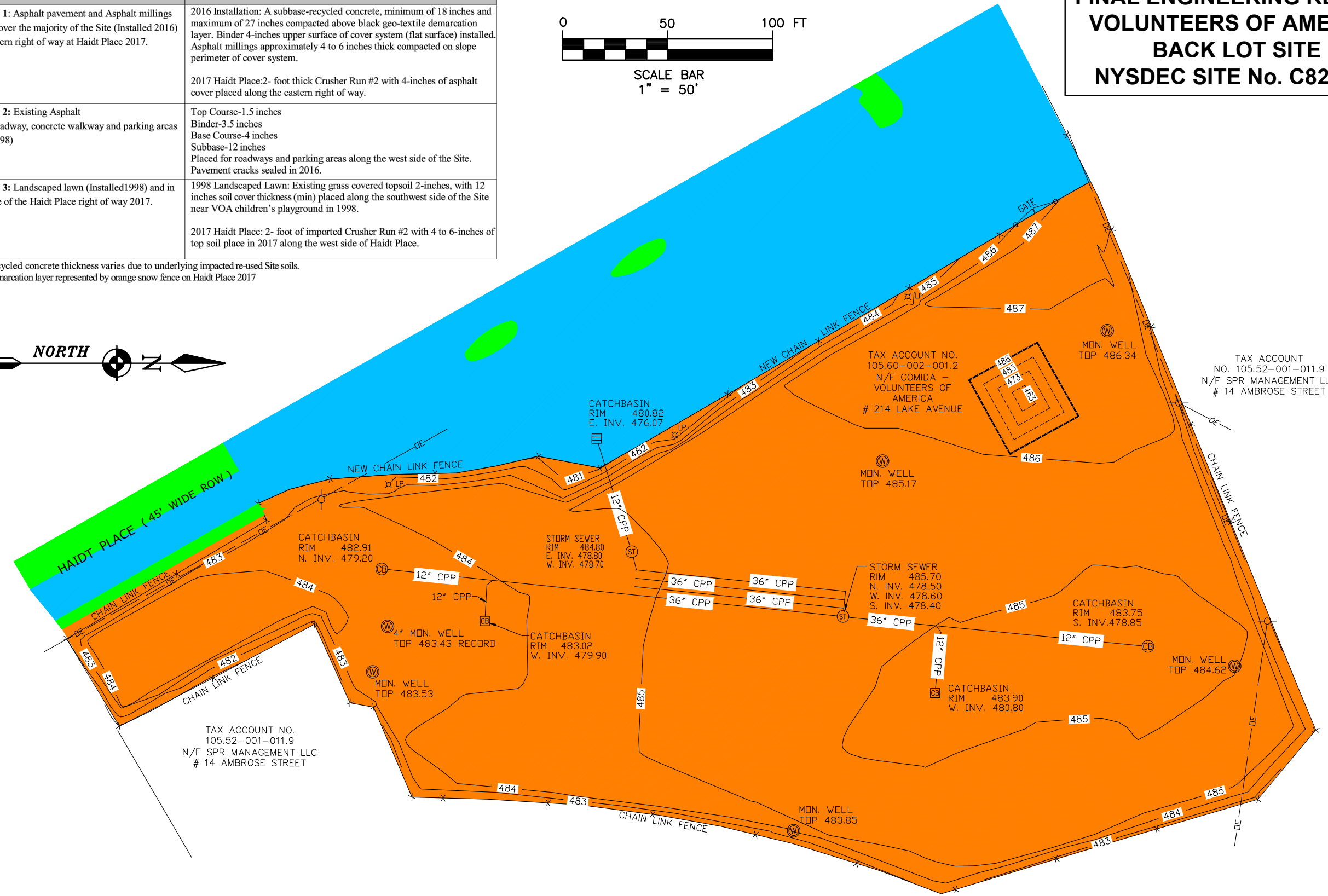


FINAL ENGINEERING REPORT  
VOLUNTEERS OF AMERICA  
BACK LOT SITE  
NYSDEC SITE No. C828126

BERGMANN  
ASSOCIATES

Bergmann Associates, Architects, Engineers,  
Landscape Architects & Surveyors, D.P.C.

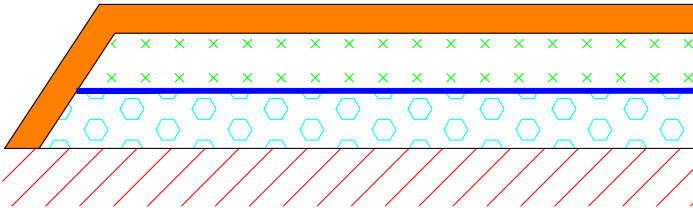
280 East Broad Street  
Suite 200  
Rochester, New York 14604  
office: 585.232.5135  
fax: 585.232.4652  
www.bergmannpc.com



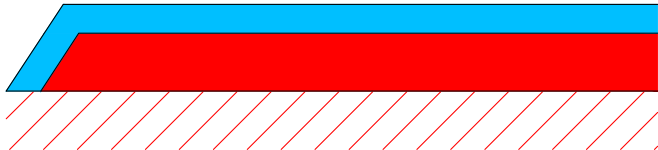
LEGEND

- PAVEMENT  
APPROXIMATELY  
0 TO 6.0 INCHES
- RECYCLED CONCRETE  
6 TO 18.0 INCHES
- DEMARCATION LAYER
- REUSED ON-SITE SOIL  
TESTED FROM RI  
APPROXIMATELY  
18.0 TO 42.0 INCHES
- ORIGINAL GROUND SURFACE
- GRASS COVERED TOPSOIL  
0 TO 2 INCHES
- TOPSOIL  
4 TO 6 INCHES
- IMPORTED GRAVEL  
4 TO 22 INCHES
- SUBBASE  
9 TO 21 INCHES
- PAVEMENT  
0 TO 9 INCHES

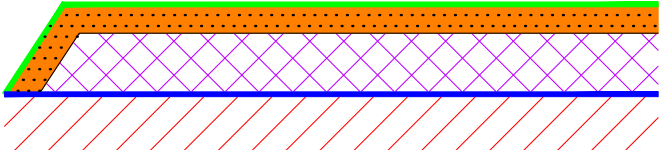
COVER TYPE 1 – MINIMUM  
487 ELEVATION



COVER TYPE 2 – MINIMUM



COVER TYPE 3 – MINIMUM  
485 ELEVATION



CONTOUR MAP  
OF EXCAVATION AND  
BACKFILL THICKNESS

FIGURE 4



View looking south along Haidt Place Right of Way, grass Cover Type 3.



View looking north Cover Type 2, pavement patches installed in 2018 and 2019 .



# BERGMANN

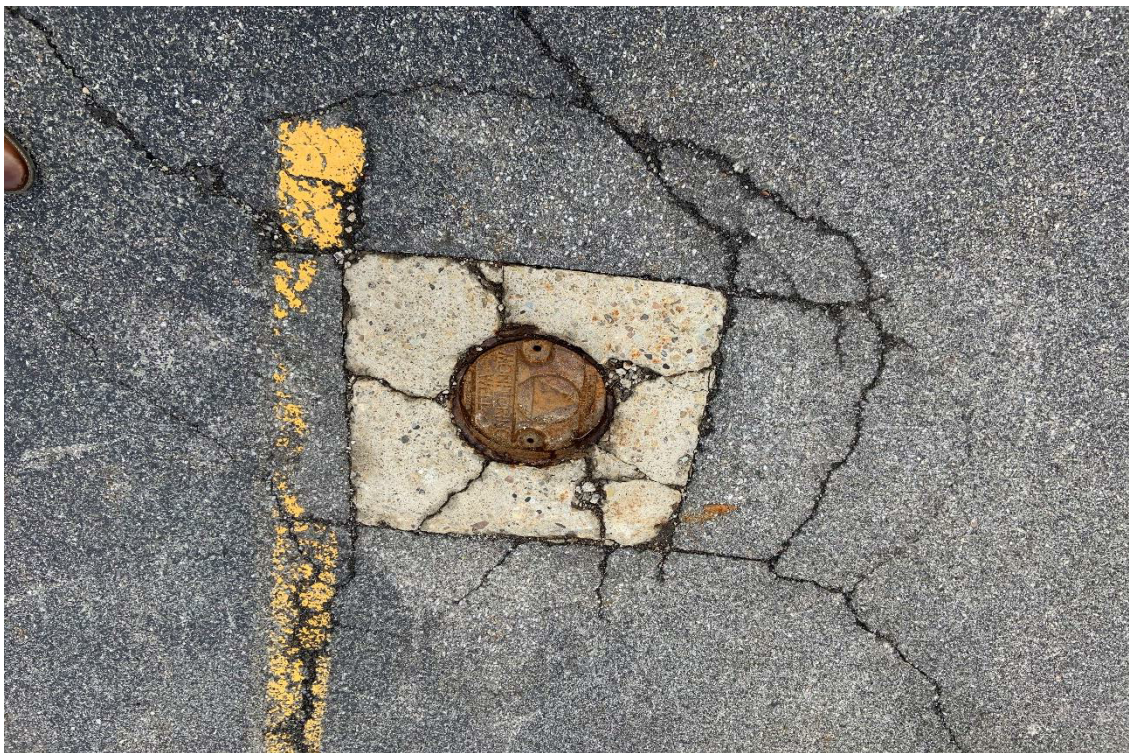
ARCHITECTS ENGINEERS PLANNERS



Cover Type 2, pavement patches installed in 2019.



Cover Type 3, grass in island of Cover Type 2, view looking northwest.



MW-101 cracked concrete surface seal to be replaced in 2020.



Cracked area of Cover Type 2 that requires sealer in 2020.



Cover Type 1, view looking south.



Cover Type 1, view looking southeast.



Cover Type 1, view looking east with weeds that need removal in 2020.



Cover Type 1, view looking west.



Cover Type 1 and Cover Type 2, view looking north.



Locking gate from Cover Type 2 into Cover Type 1.



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## APPENDIX 2

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation

625 Broadway, 11<sup>th</sup> Floor, Albany, NY 12233-7020

P: (518)402-9543 | F: (518)402-9547

[www.dec.ny.gov](http://www.dec.ny.gov)

5/8/2020

Lynn Sullivan  
President/Ceo  
Volunteers of America of Western New York, Inc.  
214 Lake Avenue  
Rochester, NY 14608

## **Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal**

**Site Name:** Volunteers of America Back Lot Site

**Site No.:** C828126

**Site Address:** 18 Ambrose Street and portion of 214 Lake Avenue  
Rochester, NY 14608

Dear Lynn Sullivan:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site-specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at <http://www.dec.ny.gov/regulations/67386.html>) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **May 28, 2020**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.



**Department of  
Environmental  
Conservation**

All site-related documents and data, including the PRR, must be submitted in electronic format to the Department of Environmental Conservation. The required format for documents is an Adobe PDF file with optical character recognition and no password protection. Data must be submitted as an electronic data deliverable (EDD) according to the instructions on the following webpage:

<https://www.dec.ny.gov/chemical/62440.html>

Documents may be submitted to the project manager either through electronic mail or by using the Department's file transfer service at the following webpage:

<https://fts.dec.state.ny.us/fts/>

The Department will not approve the PRR unless all documents and data generated in support of the PRR have been submitted using the required formats and protocols.

You may contact , the Project Manager, at or with any questions or concerns about the site. Please notify the project manager before conducting inspections or field work. You may also write to the project manager at the following address:

New York State Department of Environmental Conservation  
, NY

Enclosures

PRR General Guidance  
Certification Form Instructions  
Certification Forms

cc: w/ enclosures

County Of Monroe Industrial Development  
Volunteers Of America Of Western NY

ec: w/ enclosures

Charlotte Theobald, Project Manager  
David G. Pratt, Hazardous Waste Remediation Supervisor, Region 8

BERGMANN ASSOCIATES - Stephen DeMeo - [sdemeo@bergmannpc.com](mailto:sdemeo@bergmannpc.com)

## Enclosure 1

### Certification Instructions

#### I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

#### II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

#### III. IC/EC Certification by Signature (Box 6 and Box 7):

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.
- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.



Enclosure 2  
**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**  
**Site Management Periodic Review Report Notice**  
**Institutional and Engineering Controls Certification Form**



**Site Details**

**Box 1**

**Site No.**            **C828126**

**Site Name** **Volunteers of America Back Lot Site**

Site Address: 18 Ambrose Street and portion of 214 Lake Avenue    Zip Code: 14608

City/Town: Rochester

County: Monroe

Site Acreage: 3.055

Reporting Period: April 29, 2019 to April 29, 2020

YES    NO

1. Is the information above correct?

☒    ☐

If NO, include handwritten above or on a separate sheet.

2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?

☐    ☒

3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?

☐    ☒

4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?

☐    ☒

**If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.**

5. Is the site currently undergoing development?

☐    ☒

**Box 2**

YES    NO

6. Is the current site use consistent with the use(s) listed below?

☒    ☐

Restricted-Residential, Commercial, and Industrial

7. Are all ICs/ECs in place and functioning as designed?

☒    ☐

**IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

\_\_\_\_\_  
Signature of Owner, Remedial Party or Designated Representative

\_\_\_\_\_  
Date

		<b>Box 2A</b>	
		<b>YES</b>	<b>NO</b>
8.	Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.</b>			
9.	Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.</b>			

<b>SITE NO. C828126</b>	<b>Box 3</b>
<b>Description of Institutional Controls</b>	

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
<b>105.60-2-1.002 (portion of)</b>	County of Monroe Industrial Development	Ground Water Use Restriction Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan
<p>Imposition of an institutional control in the form of an environmental easement for the controlled property which will: requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3); allows the use and development of the controlled property for restricted residential as defined by Part 375-1.8(g), although land use is subject to local zoning laws; restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and require compliance with the Department approved Site Management Plan.</p> <p>A Site Management Plan is required, which includes the following: an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective.</p> <p>This plan includes, but may not be limited to: an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination; descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions; a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion; provisions for the management and inspection of the identified engineering controls; maintaining site access controls and Department notification; and the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls. A Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to: monitoring of groundwater to assess the performance and effectiveness of the remedy; a schedule of monitoring and frequency of submittals to the Department; and monitoring for vapor intrusion for any future buildings developed on the site.</p>		
<b>105.60-2-59.003</b>	Volunteers of America of Western NY	Ground Water Use Restriction Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan
<p>Imposition of an institutional control in the form of an environmental easement for the controlled property which will: requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3); allows the use and development of the controlled property for restricted residential as defined by Part 375-1.8(g), although land use is subject to local zoning laws; restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and require compliance with the Department approved Site Management Plan.</p> <p>A Site Management Plan is required, which includes the following: an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective.</p> <p>This plan includes, but may not be limited to: an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination; descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions; a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion; provisions for the management and inspection of the identified engineering controls; maintaining site access controls and Department notification; and the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls. A Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to: monitoring of groundwater to assess the performance and effectiveness of the remedy; a schedule of monitoring and frequency of submittals to the Department; and monitoring for vapor intrusion for any future buildings developed on the site.</p>		

**Description of Engineering Controls**ParcelEngineering Control**105.60-2-1.002 (portion of)****Cover System**

A site cover will be required to allow for restricted residential use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d).

**105.60-2-59.003****Cover System**

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### Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

☒ ☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

☒ ☐

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and  
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

\_\_\_\_\_  
Signature of Owner, Remedial Party or Designated Representative

\_\_\_\_\_  
Date

**IC CERTIFICATIONS  
SITE NO. C828126**

**Box 6**

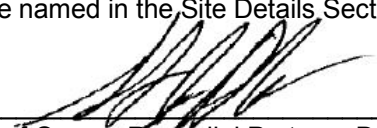
**SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE**

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Stephen DeMeo at 280 East Broad Street, Rochester, NY, 14604,  
print name print business address

am certifying as Consultant for Owner for the Site named in the Site (Owner or Remedial Party)  
Details of this form

for the Site named in the Site Details Section of this form.

  
\_\_\_\_\_  
Signature of Owner, Remedial Party, or Designated Representative  
Rendering Certification

May 28, 2020  
\_\_\_\_\_  
Date

## IC/EC CERTIFICATIONS

Box 7

### Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Robert Switala, PE at 2665 Corning Road, Horseheads, NY, 14845,  
print name print business address

NYS Professional Engineer  
am certifying as a ^ for the Owner

(Owner or Remedial Party)



A handwritten signature in black ink, which appears to read "Robert Switala", is written over a horizontal line.

Signature of , for the Owner or Remedial Party,  
Rendering Certification

Stamp  
(Required for PE)

May 28, 2020  
Date

**Enclosure 3**  
**Periodic Review Report (PRR) General Guidance**

- I. Executive Summary: (1/2-page or less)
  - A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
  - B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
    - 1. progress made during the reporting period toward meeting the remedial objectives for the site
    - 2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
  - C. Compliance
    - 1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
    - 2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
  - D. Recommendations
    - 1. recommend whether any changes to the SMP are needed
    - 2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
    - 3. recommend whether the requirements for discontinuing site management have been met.
- II. Site Overview (one page or less)
  - A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
  - B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.
- III. Evaluate Remedy Performance, Effectiveness, and Protectiveness  
Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.
- IV. IC/EC Plan Compliance Report (if applicable)
  - A. IC/EC Requirements and Compliance
    - 1. Describe each control, its objective, and how performance of the control is evaluated.
    - 2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
    - 3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
    - 4. Conclusions and recommendations for changes.
  - B. IC/EC Certification
    - 1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).
- V. Monitoring Plan Compliance Report (if applicable)
  - A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
  - B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
  - C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
  - D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
  - E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.
- VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
  - A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
  - B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.
  - C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated

the ability of each component of the remedy subject to O&M requirements to perform as designed/expected.

- D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.
- E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

#### VII. Overall PRR Conclusions and Recommendations

- A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
  - 1. whether all requirements of each plan were met during the reporting period
  - 2. any requirements not met
  - 3. proposed plans and a schedule for coming into full compliance.
- B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.
- C. Future PRR Submittals
  - 1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
  - 2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

#### VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation

625 Broadway, 11<sup>th</sup> Floor, Albany, NY 12233-7020

P: (518)402-9543 | F: (518)402-9547

[www.dec.ny.gov](http://www.dec.ny.gov)

5/8/2020

Lynn Sullivan  
President/Ceo  
Volunteers of America of Western New York, Inc.  
214 Lake Avenue  
Rochester, NY 14608

## **Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal**

**Site Name:** Volunteers of America Back Lot Site

**Site No.:** C828126

**Site Address:** 18 Ambrose Street and portion of 214 Lake Avenue  
Rochester, NY 14608

Dear Kim Brumber:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site-specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at <http://www.dec.ny.gov/regulations/67386.html>) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **May 28, 2020**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.



**Department of  
Environmental  
Conservation**

All site-related documents and data, including the PRR, must be submitted in electronic format to the Department of Environmental Conservation. The required format for documents is an Adobe PDF file with optical character recognition and no password protection. Data must be submitted as an electronic data deliverable (EDD) according to the instructions on the following webpage:

<https://www.dec.ny.gov/chemical/62440.html>

Documents may be submitted to the project manager either through electronic mail or by using the Department's file transfer service at the following webpage:

<https://fts.dec.state.ny.us/fts/>

The Department will not approve the PRR unless all documents and data generated in support of the PRR have been submitted using the required formats and protocols.

You may contact , the Project Manager, at or with any questions or concerns about the site. Please notify the project manager before conducting inspections or field work. You may also write to the project manager at the following address:

New York State Department of Environmental Conservation  
, NY

Enclosures

PRR General Guidance  
Certification Form Instructions  
Certification Forms

cc: w/ enclosures

County Of Monroe Industrial Development  
Volunteers Of America Of Western NY

ec: w/ enclosures

Charlotte Theobald, Project Manager  
David G. Pratt, Hazardous Waste Remediation Supervisor, Region 8

BERGMANN ASSOCIATES - Stephen DeMeo - [sdemeo@bergmannpc.com](mailto:sdemeo@bergmannpc.com)

## Enclosure 1

### Certification Instructions

#### I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

#### II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

#### III. IC/EC Certification by Signature (Box 6 and Box 7):

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.
- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.



Enclosure 2  
**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**  
**Site Management Periodic Review Report Notice**  
**Institutional and Engineering Controls Certification Form**



**Site Details**

**Box 1**

**Site No.**            **C828126**

**Site Name** **Volunteers of America Back Lot Site**

Site Address: 18 Ambrose Street and portion of 214 Lake Avenue    Zip Code: 14608

City/Town: Rochester

County: Monroe

Site Acreage: 3.055

Reporting Period: April 29, 2019 to April 29, 2020

YES    NO

1. Is the information above correct?

☐    ☐

If NO, include handwritten above or on a separate sheet.

2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?

☐    ☐

3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?

☐    ☐

4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?

☐    ☐

**If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.**

5. Is the site currently undergoing development?

☐    ☐

**Box 2**

YES    NO

6. Is the current site use consistent with the use(s) listed below?

☐    ☐

Restricted-Residential, Commercial, and Industrial

7. Are all ICs/ECs in place and functioning as designed?

☐    ☐

**IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and  
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

\_\_\_\_\_  
Signature of Owner, Remedial Party or Designated Representative

\_\_\_\_\_  
Date

		<b>Box 2A</b>	
		<b>YES</b>	<b>NO</b>
8.	Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	<input type="checkbox"/>	<input type="checkbox"/>
<b>If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.</b>			
9.	Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	<input type="checkbox"/>	<input type="checkbox"/>
<b>If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.</b>			
<b>SITE NO. C828126</b>		<b>Box 3</b>	
<b>Description of Institutional Controls</b>			

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
<b>105.60-2-1.002 (portion of)</b>	County of Monroe Industrial Development	Ground Water Use Restriction Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan
<p>Imposition of an institutional control in the form of an environmental easement for the controlled property which will: requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3); allows the use and development of the controlled property for restricted residential as defined by Part 375-1.8(g), although land use is subject to local zoning laws; restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and require compliance with the Department approved Site Management Plan.</p> <p>A Site Management Plan is required, which includes the following: an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective.</p> <p>This plan includes, but may not be limited to: an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination; descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions; a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion; provisions for the management and inspection of the identified engineering controls; maintaining site access controls and Department notification; and the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls. A Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to: monitoring of groundwater to assess the performance and effectiveness of the remedy; a schedule of monitoring and frequency of submittals to the Department; and monitoring for vapor intrusion for any future buildings developed on the site.</p>		
<b>105.60-2-59.003</b>	Volunteers of America of Western NY	Ground Water Use Restriction Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan
<p>Imposition of an institutional control in the form of an environmental easement for the controlled property which will: requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3); allows the use and development of the controlled property for restricted residential as defined by Part 375-1.8(g), although land use is subject to local zoning laws; restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and require compliance with the Department approved Site Management Plan.</p> <p>A Site Management Plan is required, which includes the following: an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective.</p> <p>This plan includes, but may not be limited to: an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination; descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions; a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion; provisions for the management and inspection of the identified engineering controls; maintaining site access controls and Department notification; and the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls. A Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to: monitoring of groundwater to assess the performance and effectiveness of the remedy; a schedule of monitoring and frequency of submittals to the Department; and monitoring for vapor intrusion for any future buildings developed on the site.</p>		

**Description of Engineering Controls**ParcelEngineering Control**105.60-2-1.002 (portion of)****Cover System**

A site cover will be required to allow for restricted residential use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d).

**105.60-2-59.003****Cover System**

A site cover will be required to allow for restricted residential use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d).

### Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

☐ ☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

☐ ☐

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and  
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

\_\_\_\_\_  
Signature of Owner, Remedial Party or Designated Representative

\_\_\_\_\_  
Date

**IC CERTIFICATIONS  
SITE NO. C828126**

**Box 6**

**SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE**

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I \_\_\_\_\_ at \_\_\_\_\_,  
print name print business address

am certifying as \_\_\_\_\_(Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

\_\_\_\_\_  
Signature of Owner, Remedial Party, or Designated Representative  
Rendering Certification

\_\_\_\_\_  
Date

## IC/EC CERTIFICATIONS

**Box 7**

### Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I \_\_\_\_\_ at \_\_\_\_\_,  
print name print business address

am certifying as a for the \_\_\_\_\_  
(Owner or Remedial Party)

\_\_\_\_\_  
Signature of , for the Owner or Remedial Party,  
Rendering Certification

\_\_\_\_\_  
Stamp  
(Required for PE)

\_\_\_\_\_  
Date

**Enclosure 3**  
**Periodic Review Report (PRR) General Guidance**

- I. Executive Summary: (1/2-page or less)
  - A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
  - B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
    - 1. progress made during the reporting period toward meeting the remedial objectives for the site
    - 2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
  - C. Compliance
    - 1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
    - 2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
  - D. Recommendations
    - 1. recommend whether any changes to the SMP are needed
    - 2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
    - 3. recommend whether the requirements for discontinuing site management have been met.
- II. Site Overview (one page or less)
  - A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
  - B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.
- III. Evaluate Remedy Performance, Effectiveness, and Protectiveness  
Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.
- IV. IC/EC Plan Compliance Report (if applicable)
  - A. IC/EC Requirements and Compliance
    - 1. Describe each control, its objective, and how performance of the control is evaluated.
    - 2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
    - 3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
    - 4. Conclusions and recommendations for changes.
  - B. IC/EC Certification
    - 1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).
- V. Monitoring Plan Compliance Report (if applicable)
  - A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
  - B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
  - C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
  - D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
  - E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.
- VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
  - A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
  - B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.
  - C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated

the ability of each component of the remedy subject to O&M requirements to perform as designed/expected.

- D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.
- E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

#### VII. Overall PRR Conclusions and Recommendations

- A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
  - 1. whether all requirements of each plan were met during the reporting period
  - 2. any requirements not met
  - 3. proposed plans and a schedule for coming into full compliance.
- B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.
- C. Future PRR Submittals
  - 1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
  - 2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

#### VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.



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## APPENDIX 3

**TABLE 8 Groundwater Sample Analytical Summary**  
**Semi-Volatile Organic Compounds – Method OLM 4.2**

Volunteers of America of Western New York  
214 Lake Avenue Rochester, New York

Semi-volatile Organic Compounds Page 1 of 4	VOAMW - 101 10/30/08	VOAMWR - 101 10/30/08	VOAMW - 102 10/31/08	VOAMWR - 102 10/31/08	VOAMW - 103 10/31/08	VOAMW - 104 10/30/08	NYSDEC Groundwater Standards
Acenaphthene	9ND	9ND	9ND	9ND	2.0J	9ND	20
Acenaphthylene	9ND	9ND	9ND	9ND	9ND	9ND	-
Acetophenone	9ND	9ND	9ND	9ND	9ND	9ND	-
Anthracene	1.0J	9ND	9ND	9ND	9ND	9ND	50
Atrazine	9ND	9ND	9ND	9ND	9ND	9ND	7.5
Benzaldehyde	9ND	9ND	9ND	9ND	9ND	9ND	-
Benzo (a) Anthracene	2.0J	9ND	9ND	9ND	1.0J	1.0J	0.002
Benzo (a) Pyrene	2.0J	9ND	9ND	9ND	2.0J	1.0J	ND
Benzo (b) Fluoranthene	1.0J	9ND	9ND	9ND	1.0J	1.0J	0.002
Benzo (g,h,i) Perylene	1.0J	9ND	9ND	9ND	2.0J	9ND	-
Benzo (k) Fluoranthene	1.0J	9ND	9ND	9ND	9ND	9ND	0.002
Biphenyl	9ND	9ND	9ND	9ND	9ND	9ND	-
Butyl Benzyl Phthalate	9ND	9ND	9ND	9ND	9ND	9ND	50
Di-N-Butylphthalate	3.0JB	3.0JB	3.0JB	3.0JB	3.0JB	3.0JB	50
Caprolactam	24ND	3.0J	9ND	9ND	8.0J	9ND	-
Carbazole	9ND	9ND	9ND	9ND	9ND	9ND	-
Indeno (1,2,3-cd) Pyrene	1.0J	9ND	9ND	9ND	1.0J	9ND	0.002
4-Chloroaniline	9ND	9ND	9ND	9ND	9ND	9ND	5.0
Bis (-2-Chloroethoxy) Methane	9ND	9ND	9ND	9ND	9ND	9ND	5.0
Bis (-2-Chloroethyl) Ether	9ND	9ND	9ND	9ND	9ND	9ND	1.0
2-Chloronaphthalene	9ND	9ND	9ND	9ND	9ND	9ND	10
2-Chlorophenol	9ND	9ND	9ND	9ND	9ND	9ND	1.0
2,2'- Oxybis (1-Chloropropane)	9ND	9ND	9ND	9ND	9ND	9ND	5.0
Chrysene	2.0J	9ND	9ND	9ND	1.0J	1.0J	0.002
Dibenz (a,h) Anthracene	9ND	9ND	9ND	9ND	9ND	9ND	-
Dibenzofuran	9ND	9ND	9ND	9ND	2.0J	9ND	-
3,3'- Dichlorobenzidine	9ND	9ND	9ND	9ND	9ND	9ND	5.0
2,4- Dichlorophenol	9ND	9ND	9ND	9ND	9ND	9ND	1.0
Diethylphthalate	9ND	9ND	9ND	9ND	9ND	9ND	50
Dimethyl Phthalate	9ND	9ND	9ND	9ND	9ND	9ND	50
2,4- Dimethylphenol	24ND	24ND	24ND	24ND	1.0J	9ND	1.0
2,4- Dinitrophenol	9ND	9ND	9ND	9ND	9ND	9ND	1.0
2,4- Dinitrotoluene	9ND	9ND	9ND	9ND	9ND	9ND	5.0
2,6- Dinitrotoluene	9ND	9ND	9ND	9ND	9ND	9ND	5.0
Bis (2-Ethylhexyl) Phthalate	2.0JB	4.0JB	3.0JB	9.0JB	4.0JB	3.0JB	5.0

**TABLE 8 Groundwater Sample Analytical Summary**  
**Semi-Volatile Organic Compounds – Method OLM 4.2**

Volunteers of America of Western New York  
214 Lake Avenue Rochester, New York

Semi – volatile Organic Compounds Page 2 of 4	VOAMW - 101 10/30/08	VOAMWR - 101 10/30/08	VOAMW - 102 10/31/08	VOAMWR - 102 10/31/08	VOAMW – 103 10/31/08	VOAMW – 104 10/30/08	NYSDEC Groundwater Standards
Fluoranthene	<b>4.0J</b>	9ND	9ND	9ND	9ND	<b>2.0J</b>	50
Fluorene	9ND	9ND	9ND	9ND	9ND	9ND	50
Hexachlorobenzene	9ND	9ND	9ND	9ND	9ND	9ND	0.04
Hexachlorobutadiene	9ND	9ND	9ND	9ND	9ND	9ND	0.5
Hexachlorocyclopentadiene	9ND	9ND	9ND	9ND	9ND	9ND	5.0
Hexachloroethane	9ND	9ND	9ND	9ND	9ND	9ND	5.0
Isophorone	9ND	9ND	9ND	9ND	9ND	9ND	5.0
2- Methylnaphthalene	9ND	9ND	9ND	9ND	<b>2.0J</b>	9ND	-
4,6- Dinitro-2- Methylphenol	24ND	24ND	24ND	24ND	24ND	9ND	1.0
4- Chloro-3- Methylphenol	9ND	9ND	9ND	9ND	9ND	9ND	1.0
2- Methylphenol	9ND	9ND	9ND	9ND	9ND	9ND	1.0
4- Methylphenol	<b>36.0</b>	9ND	9ND	9ND	<b>3.0J</b>	<b>1.0J</b>	1.0
Naphthalene	<b>2.0J</b>	9ND	9ND	9ND	<b>6.0J</b>	9ND	10
2- Nitroaniline	24ND	24ND	24ND	24ND	24ND	24ND	5.0
3- Nitroaniline	24ND	24ND	24ND	24ND	24ND	24ND	5.0
4- Nitroaniline	24ND	24ND	24ND	24ND	24ND	24ND	5.0
Nitrobenzene	9ND	9ND	9ND	9ND	9ND	9ND	0.4
2- Nitrophenol	9ND	9ND	9ND	9ND	9ND	9ND	1.0
4- Nitrophenol	24ND	24ND	24ND	24ND	24ND	24ND	1.0
N- Nitrosodiphenylamine	9ND	9ND	9ND	9ND	9ND	9ND	50
Di-n-octyl Phthalate	9ND	9ND	9ND	9ND	9ND	9ND	50
Pentachlorophenol	24ND	24ND	24ND	24ND	24ND	24ND	5.0
Phenanthrene	<b>4.0J</b>	9ND	9ND	9ND	<b>3.0J</b>	<b>1.0J</b>	5.0
Phenol	<b>6.0J</b>	9ND	9ND	9ND	<b>2.0J</b>	9ND	1.0
4- Bromophenyl- Phenylether	9ND	9ND	9ND	9ND	9ND	9ND	-
4- Chlorophenyl- Phenylether	9ND	9ND	9ND	9ND	9ND	9ND	-
N- nitroso-di-n- Propylamine	9ND	9ND	9ND	9ND	9ND	9ND	-
Pyrene	<b>3.0J</b>	9ND	9ND	9ND	<b>2.0J</b>	<b>2.0J</b>	5.0
2,4,6- Trichlorophenol	9ND	9ND	9ND	9ND	9ND	9ND	1.0
2,4,5- Trichlorophenol	24ND	24ND	24ND	24ND	24ND	24ND	1.0
Total TICs Concentration and Number of TICs Detected	<b>53.0J,JB (16)</b>	<b>8.0 J,JB (3)</b>	<b>12.0 J,JB,JN (5)</b>	<b>2.0JB (1)</b>	<b>18.0 J,JB,JN (7)</b>	<b>40.0 J,JB,JN (8)</b>	NA

Notes: Groundwater samples collected on October 30, 2008 and October 31, 2008 by GeoQuest Environmental, Inc. concentrations expressed in parts per billion (ppb). Bold type indicates concentration above the laboratory detection limit and shaded concentrations exceed NYSDEC Groundwater standard. See laboratory case narrative page 3 for **J**, **JN**, **JB** estimated values. - = No standard, ND = non detection above limits. NYSDEC groundwater standards 703.5 and June 1998 Division of Technical and Operational guidance series T.O.G.S. 1.1.1 and as amended April 2000.

**TABLE 8 Groundwater Sample Analytical Summary  
Semi-Volatile Organic Compounds – Method OLM 4.2**

Volunteers of America of Western New York  
214 Lake Avenue Rochester, New York

Semi-volatile Organic Compounds Page 3 of 4	VOAMW - 105 10/31/08	VOAMW - 105 10/30/08 dup.	VOAMW - 106 10/30/08	NYSDEC Groundwater Standards
Acenaphthene	9ND	9ND	3.0J	20
Acenaphthylene	9ND	9ND	9ND	-
Acetophenone	9ND	9ND	9ND	-
Anthracene	9ND	9ND	4.0J	50
Atrazine	9ND	9ND	9ND	7.5
Benzaldehyde	9ND	9ND	9ND	-
Benzo (a) Anthracene	9ND	9ND	10.0J	0.002
Benzo (a) Pyrene	9ND	9ND	10.0J	ND
Benzo (b) Fluoranthene	9ND	9ND	7.0J	0.002
Benzo (g,h,i) Perylene	9ND	9ND	6.0J	-
Benzo (k) Fluoranthene	9ND	9ND	8.0J	0.002
Biphenyl	9ND	9ND	9ND	-
Butyl Benzyl Phthalate	9ND	9ND	9ND	50
Di-N-Butylphthalate	2.0JB	3.0JB	3.0JB	50
Caprolactam	24ND	24ND	24ND	-
Carbazole	9ND	9ND	9ND	-
Indeno (1,2,3-cd) Pyrene	9ND	9ND	5.0J	0.002
4-Chloroaniline	9ND	9ND	9ND	5.0
Bis (-2-Chloroethoxy) Methane	9ND	9ND	9ND	5.0
Bis (-2-Chloroethyl) Ether	9ND	9ND	9ND	1.0
2-Chloronaphthalene	9ND	9ND	9ND	10
2-Chlorophenol	9ND	9ND	9ND	1.0
2,2'- Oxybis (1-Chloropropane)	9ND	9ND	9ND	5.0
Chrysene	9ND	9ND	9.0J	0.002
Dibenz (a,h) Anthracene	9ND	9ND	9ND	-
Dibenzofuran	9ND	9ND	9ND	-
3,3'- Dichlorobenzidine	9ND	9ND	9ND	5.0
2,4- Dichlorophenol	9ND	9ND	9ND	1.0
Diethylphthalate	9ND	9ND	9ND	50
Dimethyl Phthalate	9ND	9ND	9ND	50
2,4- Dimethylphenol	24ND	24ND	24ND	1.0
2,4- Dinitrophenol	9ND	9ND	9ND	1.0
2,4- Dinitrotoluene	9ND	9ND	9ND	5.0
2,6- Dinitrotoluene	9ND	9ND	9ND	5.0
Bis (2-Ethylhexyl) Phthalate	2.0JB	2.0JB	5.0JB	5.0

**TABLE 8 Groundwater Sample Analytical Summary  
Semi-Volatile Organic Compounds – Method OLM 4.2**

Volunteers of America of Western New York  
214 Lake Avenue Rochester, New York

Semi – volatile Organic Compounds Page 4 of 4	VOAMW - 105 10/31/08	VOAMW - 105 10/31/08 dup.	VOAMW - 106 10/30/08	NYSDEC Groundwater Standards
Fluoranthene	9ND	9ND	<b>22.0</b>	50
Fluorene	9ND	9ND	<b>3.0J</b>	50
Hexachlorobenzene	9ND	9ND	9ND	0.04
Hexachlorobutadiene	9ND	9ND	9ND	0.5
Hexachlorocyclopentadiene	9ND	9ND	9ND	5.0
Hexachloroethane	9ND	9ND	9ND	5.0
Isophorone	9ND	9ND	9ND	5.0
2- Methylanthralene	9ND	9ND	9ND	-
4,6- Dinitro-2- Methylphenol	24ND	24ND	24ND	1.0
4- Chloro-3- Methylphenol	9ND	9ND	9ND	1.0
2- Methylphenol	9ND	9ND	9ND	1.0
4- Methylphenol	9ND	9ND	9ND	1.0
Naphthalene	9ND	9ND	<b>4.0J</b>	10
2- Nitroaniline	24ND	24ND	24ND	5.0
3- Nitroaniline	24ND	24ND	24ND	5.0
4- Nitroaniline	24ND	24ND	24ND	5.0
Nitrobenzene	9ND	9ND	9ND	0.4
2- Nitrophenol	9ND	9ND	9ND	1.0
4- Nitrophenol	24ND	24ND	24ND	1.0
N- Nitrosodiphenylamine	9ND	9ND	9ND	50
Di-n-octyl Phthalate	9ND	9ND	9ND	50
Pentachlorophenol	24ND	24ND	24ND	5.0
Phenanthrene	9ND	<b>2.0J</b>	<b>11.0J</b>	5.0
Phenol	9ND	9ND	9ND	1.0
4- Bromophenyl- Phenylether	9ND	9ND	9ND	-
4- Chlorophenyl- Phenylether	9ND	9ND	9ND	-
N- nitroso-di-n- Propylamine	9ND	9ND	9ND	-
Pyrene	9ND	9ND	<b>18.0J</b>	5.0
2,4,6- Trichlorophenol	9ND	9ND	9ND	1.0
2,4,5- Trichlorophenol	24ND	24ND	24ND	1.0
Total TICs Concentration and Number of TICs Detected	<b>2.0 JB (1)</b>	<b>9.0 J,JB,JN (4)</b>	<b>60.0 J,JB,JN, (9)</b>	NA

Notes: Groundwater samples collected on October 30, 2008 and October 31, 2008 by GeoQuest Environmental, Inc.

All concentrations expressed in parts per billion (ppb). Bold type indicates concentration above the laboratory detection limit and shaded concentrations exceed NYSDEC groundwater standard. See laboratory case narrative page 3 for **J, JN, JB** estimated values. - = No standard, ND = non-detection above detection limits. NYSDEC groundwater standards 703.5 and June 1998 Division of Technical and Operational guidance series T.O.G.S. 1.1.1 and as amended April 2000.

**TABLE 9 Groundwater Analytical Summary**  
**Volatile Organic Compounds – Method OLM**

Volunteers of America of Western New York  
214 Lake Avenue Rochester, New York

VOC – 8260 Compounds Page 1 of 8	VOAMW-101 (10/30/08)	VOAMWR-101 (10/30/08)	VOAMW-102 (10/31/08)	VOAMWR-102 (10/31/08)	VOAMW-103 (10/31/08)	VOAMW-104 (10/30/08)	NYDEC Groundwater Standard
Acetone	2.0JB	10ND	10ND	1.0JB	2.0JB	1.0JB	50
Benzene	10ND	10ND	10ND	10ND	10ND	10ND	0.7
Bromodichloromethane	10ND	3.0J	10ND	10ND	10ND	10ND	50
Bromoform	10ND	10ND	10ND	10ND	10ND	10ND	50
Bromomethane	10ND	10ND	10ND	10ND	10ND	10ND	5
2- Butanone (MEK)	10ND	10ND	10ND	10ND	10ND	10ND	50
Methyl Tert- Butyl Ether	10ND	10ND	10ND	31.0	10ND	10ND	10
Carbon Disulfide	10ND	10ND	10ND	0.9J	10ND	10ND	5
Carbon Tetrachloride	10ND	10ND	10ND	10ND	10ND	10ND	5
Chlorobenzene	10ND	10ND	10ND	10ND	10ND	10ND	5
Chloroethane	10ND	10ND	10ND	10ND	10ND	10ND	5
Chloroform	10ND	6.0J	10ND	10ND	10ND	10ND	7
Chloromethane	10ND	10ND	10ND	10ND	10ND	10ND	5
1,2- Dibromo-3- Chloropropane	10ND	10ND	10ND	10ND	10ND	10ND	-
Cyclohexane	10ND	10ND	10ND	10ND	10ND	10ND	-
Dibromochloromethane	10ND	1.0J	10ND	10ND	10ND	10ND	50
1,2- Dibromoethane	10ND	10ND	10ND	10ND	10ND	10ND	0.6
1,2- Dichlorobenzene	10ND	10ND	10ND	10ND	10ND	10ND	3
1,4- Dichlorobenzene	10ND	10ND	10ND	10ND	10ND	10ND	3
1,3- Dichlorobenzene	10ND	10ND	10ND	10ND	10ND	10ND	3
Dichlorodifluoromethane	10ND	10ND	10ND	10ND	10ND	10ND	-
1,1- Dichloroethane	10ND	10ND	10ND	10ND	10ND	0.7J	5
1,2- Dichloroethane	10ND	10ND	10ND	10ND	10ND	10ND	5
1,1- Dichloroethene	10ND	10ND	10ND	10ND	10ND	10ND	5
Trans-1,2- Dichloroethene	10ND	10ND	10ND	10ND	10ND	10ND	5
Cis-1,2-Dichloroethene	10ND	10ND	10ND	1.0J	10ND	10ND	5
1,2- Dichloropropane	10ND	10ND	10ND	10ND	10ND	10ND	5
Trans-1,3- Dichloropropene	10ND	10ND	10ND	10ND	10ND	10ND	5
Cis-1,3- Dichloropropene	10ND	10ND	10ND	10ND	10ND	10ND	5
Ethylbenzene	10ND	10ND	10ND	10ND	10ND	10ND	5
2- Hexanone	10ND	10ND	10ND	10ND	10ND	10ND	50
Isopropylbenzene	10ND	10ND	10ND	10ND	10ND	10ND	-
Methyl Acetate	10ND	10ND	10ND	10ND	10ND	10ND	-
Methylcyclohexane	10ND	0.4J	3.0J	10ND	10ND	10ND	-
Methylene Chloride	10ND	10ND	10ND	10ND	10ND	10ND	5
4- Methyl-2- Pentanone	10ND	10ND	10ND	10ND	10ND	10ND	5

**TABLE 9 Groundwater Analytical Summary  
Volatile Organic Compounds – Method OLM**

Volunteers of America of Western New York  
214 Lake Avenue Rochester, New York

VOC – 8260 Compounds Page 2 of 8	VOAMW-101 (10/30/08)	VOAMWR-101 (10/30/08)	VOAMW-102 (10/31/08)	VOAMWR-102 (10/31/08)	VOAMW-103 (10/31/08)	VOAMW-104 (10/30/08)	NYSDEC Groundwater Standard
Styrene	10ND	10ND	10ND	10ND	10ND	10ND	5
1,1,2,2- Tetrachloroethane	10ND	10ND	10ND	10ND	10ND	10ND	5
Tetrachloroethene	10ND	10ND	10ND	10ND	10ND	10ND	5
Toluene	10ND	10ND	10ND	10ND	10ND	10ND	5
1,2,4- Trichlorobenzene	10ND	10ND	10ND	10ND	10ND	10ND	-
1,1,1- Trichloroethane	10ND	10ND	10ND	10ND	10ND	10ND	5
1,1,2- Trichloroethane	10ND	10ND	10ND	10ND	10ND	10ND	5
Trichloroethene	10ND	10ND	10ND	10ND	10ND	10ND	5
Trichlorofluoromethane	10ND	10ND	10ND	10ND	10ND	10ND	-
1,1,2-Trichloro-1,2,2- Trifluoroeth	10ND	10ND	10ND	10ND	10ND	10ND	-
Vinyl Chloride	10ND	10ND	10ND	10ND	10ND	10ND	2
M+P- Xylene	10ND	10ND	<b>0.3J</b>	10ND	10ND	10ND	5
O- Xylene	10ND	10ND	10ND	10ND	10ND	10ND	5
Tentatively Identified Compounds Total and number detected	ND	ND	<b>39J,JN (5)</b>	<b>8J (1)</b>	ND	ND	NA

Notes:

1. NA = Not Applicable, ND = Less than laboratory detection limits, J = estimated value, JB = estimated value and compound detected in blank, concentrations shown in bold type indicate detection above laboratory limits. Concentrations in bold type and shaded exceed the NYSDEC groundwater standards.
2. - = No standards available and ND = non detection above the laboratory limits.
3. Concentrations are expressed in parts per billion (ppb) equivalent to ug/l.
4. Samples collected by GeoQuest Environmental, Inc. on October 30, 2008 and October 31, 2008 and analyzed by Columbia Analytical Services, Rochester, New York (Lab ID # 10145).
5. NYSDEC groundwater standards 703.5 and June 1998 Division of Technical and Operational guidance series T.O.G.S. 1.1.1 and as amended April 2000.

**TABLE 9 Groundwater Analytical Summary**  
**Volatile Organic Compounds – Method OLM**

Volunteers of America of Western New York  
214 Lake Avenue Rochester, New York

VOC – 8260 Compounds Page 3 of 8	VOAMW-105 (10/31/08)	VOAMW-105 (10/31/08)dup.	VOAMW-106 (10/30/08)	TRIP BLANK (10/30/08)	NYDEC Groundwater Standard
Acetone	10ND	10ND	<b>2.0JB</b>	<b>0.7JB</b>	50
Benzene	10ND	10ND	10ND	10ND	0.7
Bromodichloromethane	10ND	10ND	10ND	10ND	50
Bromoform	10ND	10ND	10ND	10ND	50
Bromomethane	10ND	10ND	10ND	10ND	5
2- Butanone (MEK)	10ND	10ND	10ND	10ND	50
Methyl Tert- Butyl Ether	10ND	10ND	10ND	10ND	10
Carbon Disulfide	10ND	10ND	10ND	10ND	5
Carbon Tetrachloride	10ND	10ND	10ND	10ND	5
Chlorobenzene	10ND	10ND	<b>2.0J</b>	10ND	5
Chloroethane	10ND	10ND	10ND	10ND	5
Chloroform	10ND	10ND	10ND	10ND	7
Chloromethane	10ND	10ND	10ND	10ND	5
1,2- Dibromo-3- Chloropropane	10ND	10ND	10ND	10ND	-
Cyclohexane	10ND	10ND	10ND	10ND	-
Dibromochloromethane	10ND	10ND	10ND	10ND	50
1,2- Dibromoethane	10ND	10ND	10ND	10ND	0.6
1,2- Dichlorobenzene	10ND	10ND	<b>0.4J</b>	10ND	3
1,4- Dichlorobenzene	10ND	10ND	10ND	10ND	3
1,3- Dichlorobenzene	10ND	10ND	10ND	10ND	3
Dichlorodifluoromethane	10ND	10ND	10ND	10ND	-
1,1- Dichloroethane	10ND	10ND	10ND	10ND	5
1,2- Dichloroethane	10ND	10ND	10ND	10ND	5
1,1- Dichloroethene	10ND	10ND	10ND	10ND	5
Trans-1,2- Dichloroethene	10ND	10ND	10ND	10ND	5
Cis-1,2-Dichloroethene	10ND	10ND	10ND	10ND	5
1,2- Dichloropropane	10ND	10ND	10ND	10ND	5
Trans-1,3- Dichloropropene	10ND	10ND	10ND	10ND	5
Cis-1,3- Dichloropropene	10ND	10ND	10ND	10ND	5
Ethylbenzene	10ND	10ND	10ND	10ND	5
2- Hexanone	10ND	10ND	10ND	10ND	50
Isopropylbenzene	10ND	10ND	10ND	10ND	-
Methyl Acetate	10ND	10ND	10ND	10ND	-
Methylcyclohexane	<b>0.3J</b>	<b>0.4J</b>	10ND	10ND	-
Methylene Chloride	10ND	10ND	10ND	10ND	5
4- Methyl-2- Pentanone	10ND	10ND	10ND	10ND	5

**TABLE 9 Groundwater Analytical Summary  
Volatile Organic Compounds – Method OLM**

Volunteers of America of Western New York  
214 Lake Avenue Rochester, New York

VOC – 8260 Compounds Page 4 of 8	VOAMW-105 (10/31/08)	VOAMW-105 (10/31/08)dup.	VOAMW-106 (10/30/08)	TRIP BLANK (10/30/08)	NYSDEC Groundwater Standard
Styrene	10ND	10ND	10ND	10ND	5
1,1,2,2- Tetrachloroethane	10ND	10ND	10ND	10ND	5
Tetrachloroethene	10ND	10ND	10ND	10ND	5
Toluene	<b>0.3J</b>	<b>0.4J</b>	10ND	10ND	5
1,2,4- Trichlorobenzene	10ND	10ND	10ND	10ND	-
1,1,1- Trichloroethane	10ND	10ND	10ND	10ND	5
1,1,2- Trichloroethane	10ND	10ND	10ND	10ND	5
Trichloroethene	10ND	10ND	10ND	10ND	5
Trichlorofluoromethane	10ND	10ND	10ND	10ND	-
1,1,2-Trichloro-1,2,2- Trifluoroeth	10ND	10ND	10ND	10ND	-
Vinyl Chloride	10ND	10ND	10ND	10ND	2
M+P- Xylene	10ND	10ND	10ND	10ND	5
O- Xylene	10ND	10ND	10ND	10ND	5
Tentatively Identified Compounds Total and number detected	ND	ND	ND	ND	NA

Notes:

1. NA = Not Applicable, ND = Less than laboratory detection limits, J = estimated value, JB = estimated value and compound detected in blank, concentrations shown in bold type indicate detection above laboratory detection limits. Concentrations in bold type and shaded exceed the NYSDEC groundwater standard.
2. - = No standards available and ND = non detection above the laboratory detection limits.
3. Concentrations are expressed in parts per billion (ppb) equivalent to ug/l.
4. Samples collected by GeoQuest Environmental, Inc. on October 30, 2008 and October 31, 2008 and analyzed by Columbia Analytical Services, Rochester, New York (Lab ID # 10145).
5. NYSDEC groundwater standards 703.5 and June 1998 Division of Technical and Operational guidance series T.O.G.S. 1.1.1 and as amended April 2000.

**TABLE 9 Groundwater Analytical Summary  
Volatile Organic Compounds – Method OLM**

Volunteers of America of Western New York

214 Lake Avenue Rochester, New York

[illegible]

**TABLE 9 Groundwater Analytical Summary**  
**Volatile Organic Compounds – Method OLM**

Volunteers of America of Western New York  
214 Lake Avenue Rochester, New York

VOC – 8260 Compounds Page 6 of 8	VOAMW-101 (7/27/09)	VOAMW-101 Duplicate (7/27/09)	VOAMWR-101 (7/27/09)	VOAMW-102 (7/27/09)	VOAMWR-102 (7/27/09)	VOAMW-103 (7/27/09)	VOAMW-104 (7/27/09)	NYSDEC Groundwater Standard
Styrene	10ND	10ND	10ND	10ND	10ND	10ND	10ND	5
1,1,2,2- Tetrachloroethane	10ND	10ND	10ND	10ND	10ND	10ND	10ND	5
Tetrachloroethene	10ND	10ND	10ND	10ND	10ND	10ND	10ND	5
Toluene	10ND	10ND	10ND	10ND	10ND	10ND	10ND	5
1,2,4- Trichlorobenzene	10ND	10ND	10ND	10ND	10ND	10ND	10ND	-
1,1,1- Trichloroethane	10ND	10ND	10ND	10ND	10ND	10ND	10ND	5
1,1,2- Trichloroethane	10ND	10ND	10ND	10ND	10ND	10ND	10ND	5
Trichloroethene	10ND	10ND	10ND	10ND	10ND	10ND	10ND	5
Trichlorofluoromethane	10ND	10ND	10ND	10ND	10ND	10ND	10ND	-
1,1,2-Trichloro-1,2,2- Trifluoroeth	10ND	10ND	10ND	10ND	10ND	10ND	10ND	-
Vinyl Chloride	10ND	10ND	10ND	10ND	10ND	10ND	10ND	2
M+P- Xylene	10ND	10ND	10ND	10ND	10ND	10ND	10ND	5
O- Xylene	10ND	10ND	10ND	10ND	10ND	10ND	10ND	5
Tentatively Identified Compounds Total and number detected	ND	ND	ND	<b>6.1JN (1)</b>	<b>9.4JN (1)</b>	ND	ND	NA

Notes:

1. NA = Not Applicable, ND = Less than laboratory detection limits, J = estimated value, JB = estimated value and compound detected in blank, concentrations shown in bold type indicate detection above laboratory limits. Concentrations in bold type and shaded exceed the NYSDEC groundwater standards.
2. - = No standards available and ND = non detection above the laboratory limits.
3. Concentrations are expressed in parts per billion (ppb) equivalent to ug/l.
4. Samples collected by GeoQuest Environmental, Inc. on July 27, 2009 and analyzed by Columbia Analytical Services, Rochester, New York (Lab ID # 10145).
5. NYSDEC groundwater standards 703.5 and June 1998 Division of Technical and Operational guidance series T.O.G.S. 1.1.1 and as amended April 2000.

**TABLE 9 Groundwater Analytical Summary**  
**Volatile Organic Compounds – Method OLM**

Volunteers of America of Western New York  
214 Lake Avenue Rochester, New York

VOC – 8260 Compounds Page 7 of 8	VOAMW-105 (7/27/09)	VOAMW-106 (7/27/09)	NYDEC Groundwater Standard
Acetone	2.6J	1.5J	50
Benzene	10ND	10ND	0.7
Bromodichloromethane	10ND	10ND	50
Bromoform	10ND	10ND	50
Bromomethane	10ND	10ND	5
2- Butanone (MEK)	10ND	10ND	50
Methyl Tert- Butyl Ether	10ND	0.41J	10
Carbon Disulfide	10ND	10ND	5
Carbon Tetrachloride	10ND	10ND	5
Chlorobenzene	10ND	22	5
Chloroethane	10ND	10ND	5
Chloroform	10ND	10ND	7
Chloromethane	10ND	10ND	5
1,2- Dibromo-3- Chloropropane	10ND	10ND	-
Cyclohexane	10ND	10ND	-
Dibromochloromethane	10ND	10ND	50
1,2- Dibromoethane	10ND	10ND	0.6
1,2- Dichlorobenzene	10ND	1.7J	3
1,4- Dichlorobenzene	10ND	1.2J	3
1,3- Dichlorobenzene	10ND	10ND	3
Dichlorodifluoromethane	10ND	10ND	-
1,1- Dichloroethane	10ND	0.37J	5
1,2- Dichloroethane	10ND	10ND	5
1,1- Dichloroethene	10ND	10ND	5
Trans-1,2- Dichloroethene	10ND	10ND	5
Cis-1,2-Dichloroethene	10ND	10ND	5
1,2- Dichloropropane	10ND	10ND	5
Trans-1,3- Dichloropropene	10ND	10ND	5
Cis-1,3- Dichloropropene	10ND	10ND	5
Ethylbenzene	10ND	10ND	5
2- Hexanone	10ND	10ND	50
Isopropylbenzene	10ND	10ND	-
Methyl Acetate	10ND	10ND	-
Methylcyclohexane	10ND	10ND	-
Methylene Chloride	10ND	10ND	5
4- Methyl-2- Pentanone	10ND	10ND	5

**TABLE 9 Groundwater Analytical Summary**  
**Volatile Organic Compounds – Method OLM**

Volunteers of America of Western New York  
214 Lake Avenue Rochester, New York

VOC – 8260 Compounds Page 8 of 8	VOAMW-105 (7/27/09)	VOAMW-106 (7/27/09)	NYSDEC Groundwater Standard
Styrene	10ND	10ND	5
1,1,2,2- Tetrachloroethane	10ND	10ND	5
Tetrachloroethene	10ND	10ND	5
Toluene	10ND	10ND	5
1,2,4- Trichlorobenzene	10ND	10ND	-
1,1,1- Trichloroethane	10ND	10ND	5
1,1,2- Trichloroethane	10ND	10ND	5
Trichloroethene	10ND	10ND	5
Trichlorofluoromethane	10ND	10ND	-
1,1,2-Trichloro-1,2,2- Trifluoroeth	10ND	10ND	-
Vinyl Chloride	10ND	10ND	2
M+P- Xylene	10ND	10ND	5
O- Xylene	10ND	10ND	5
Tentatively Identified Compounds Total and number detected	ND	ND	NA

Notes:

1. NA = Not Applicable, ND = Less than laboratory detection limits, J = estimated value, JB = estimated value and compound detected in blank, concentrations shown in bold type indicate detection above laboratory limits. Concentrations in bold type and shaded exceed the NYSDEC groundwater standard.
2. - = No standards available and ND = non detection above the laboratory detection limits.
3. Concentrations are expressed in parts per billion (ppb) equivalent to ug/l.
4. Samples collected by GeoQuest Environmental, Inc. on July 27, 2009 and analyzed by Columbia Analytical Services, Rochester, New York (Lab ID # 10145).
5. NYSDEC groundwater standards 703.5 and June 1998 Division of Technical and Operational guidance series T.O.G.S. 1.1.1 and as amended April 2000.



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## APPENDIX 4



**Lab Project ID:** 191302

**Client:** **Bergmann Associates**

**Project Reference:** VOA 1st Qtr 2019 Backlot

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**Sample Identifier:** MW-103

**Lab Sample ID:** 191302-01

**Date Sampled:** 4/2/2019

**Matrix:** Groundwater

**Date Received:** 4/2/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	<b>0.000637</b>	mg/L	D	4/10/2019 08:58

**Method Reference(s):** EPA 7470A

**Preparation Date:** 4/9/2019

**Data File:** Hg190410A

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*Report Prepared Thursday, April 18, 2019*



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-103

Lab Sample ID: 191302-01

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	0.0862	mg/L	J	4/17/2019 08:52
Antimony	< 0.0600	mg/L		4/17/2019 08:52
Arsenic	< 0.0100	mg/L		4/17/2019 08:52
Barium	0.129	mg/L		4/17/2019 08:52
Beryllium	< 0.00500	mg/L		4/17/2019 16:01
Cadmium	< 0.00500	mg/L		4/17/2019 08:52
Calcium	108	mg/L		4/17/2019 08:52
Chromium	< 0.0100	mg/L		4/17/2019 08:52
Cobalt	< 0.0500	mg/L		4/17/2019 08:52
Copper	0.0219	mg/L	J	4/17/2019 08:52
Iron	2.25	mg/L		4/17/2019 08:52
Lead	0.00680	mg/L		4/17/2019 16:01
Magnesium	26.0	mg/L		4/17/2019 08:52
Manganese	0.360	mg/L		4/17/2019 08:52
Nickel	< 0.0400	mg/L		4/17/2019 08:52
Potassium	10.2	mg/L		4/17/2019 08:52
Selenium	< 0.0200	mg/L		4/17/2019 08:52
Silver	< 0.0100	mg/L		4/17/2019 08:52
Sodium	114	mg/L		4/17/2019 08:52
Thallium	< 0.0250	mg/L		4/17/2019 08:52
Vanadium	< 0.0250	mg/L		4/17/2019 08:52
Zinc	0.0438	mg/L	J	4/17/2019 08:52

Method Reference(s): EPA 6010C  
EPA 3005A  
Preparation Date: 4/3/2019  
Data File: 190417A

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-103

Lab Sample ID: 191302-01

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		4/11/2019 13:23
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		4/11/2019 13:23
1,2,4-Trichlorobenzene	< 10.0	ug/L		4/11/2019 13:23
1,2-Dichlorobenzene	< 10.0	ug/L		4/11/2019 13:23
1,3-Dichlorobenzene	< 10.0	ug/L		4/11/2019 13:23
1,4-Dichlorobenzene	< 10.0	ug/L		4/11/2019 13:23
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		4/11/2019 13:23
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		4/11/2019 13:23
2,4,5-Trichlorophenol	< 20.0	ug/L		4/11/2019 13:23
2,4,6-Trichlorophenol	< 10.0	ug/L		4/11/2019 13:23
2,4-Dichlorophenol	< 10.0	ug/L		4/11/2019 13:23
2,4-Dimethylphenol	< 20.0	ug/L		4/11/2019 13:23
2,4-Dinitrophenol	< 20.0	ug/L		4/11/2019 13:23
2,4-Dinitrotoluene	< 10.0	ug/L		4/11/2019 13:23
2,6-Dinitrotoluene	< 10.0	ug/L		4/11/2019 13:23
2-Chloronaphthalene	< 10.0	ug/L		4/11/2019 13:23
2-Chlorophenol	< 10.0	ug/L		4/11/2019 13:23
2-Methylnapthalene	< 10.0	ug/L		4/11/2019 13:23
2-Methylphenol	< 10.0	ug/L		4/11/2019 13:23
2-Nitroaniline	< 20.0	ug/L		4/11/2019 13:23
2-Nitrophenol	< 10.0	ug/L		4/11/2019 13:23
3&4-Methylphenol	< 10.0	ug/L		4/11/2019 13:23
3,3'-Dichlorobenzidine	< 10.0	ug/L		4/11/2019 13:23
3-Nitroaniline	< 20.0	ug/L		4/11/2019 13:23
4,6-Dinitro-2-methylphenol	< 20.0	ug/L		4/11/2019 13:23
4-Bromophenyl phenyl ether	< 10.0	ug/L		4/11/2019 13:23
4-Chloro-3-methylphenol	< 10.0	ug/L		4/11/2019 13:23

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	MW-103			
Lab Sample ID:	191302-01		Date Sampled:	4/2/2019
Matrix:	Groundwater		Date Received:	4/2/2019
4-Chloroaniline	< 10.0	ug/L	4/11/2019	13:23
4-Chlorophenyl phenyl ether	< 10.0	ug/L	4/11/2019	13:23
4-Nitroaniline	< 20.0	ug/L	4/11/2019	13:23
4-Nitrophenol	< 20.0	ug/L	4/11/2019	13:23
Acenaphthene	< 10.0	ug/L	4/11/2019	13:23
Acenaphthylene	< 10.0	ug/L	4/11/2019	13:23
Acetophenone	< 10.0	ug/L	4/11/2019	13:23
Anthracene	< 10.0	ug/L	4/11/2019	13:23
Atrazine	< 10.0	ug/L	4/11/2019	13:23
Benzaldehyde	< 10.0	ug/L	4/11/2019	13:23
Benzo (a) anthracene	< 10.0	ug/L	4/11/2019	13:23
Benzo (a) pyrene	< 10.0	ug/L	4/11/2019	13:23
Benzo (b) fluoranthene	< 10.0	ug/L	4/11/2019	13:23
Benzo (g,h,i) perylene	< 10.0	ug/L	4/11/2019	13:23
Benzo (k) fluoranthene	< 10.0	ug/L	4/11/2019	13:23
Bis (2-chloroethoxy) methane	< 10.0	ug/L	4/11/2019	13:23
Bis (2-chloroethyl) ether	< 10.0	ug/L	4/11/2019	13:23
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	4/11/2019	13:23
Butylbenzylphthalate	< 10.0	ug/L	4/11/2019	13:23
Caprolactam	< 10.0	ug/L	4/11/2019	13:23
Carbazole	< 10.0	ug/L	4/11/2019	13:23
Chrysene	< 10.0	ug/L	4/11/2019	13:23
Dibenz (a,h) anthracene	< 10.0	ug/L	4/11/2019	13:23
Dibenzofuran	< 10.0	ug/L	4/11/2019	13:23
Diethyl phthalate	< 10.0	ug/L	4/11/2019	13:23
Dimethyl phthalate	< 20.0	ug/L	4/11/2019	13:23
Di-n-butyl phthalate	< 10.0	ug/L	4/11/2019	13:23
Di-n-octylphthalate	< 10.0	ug/L	4/11/2019	13:23
Fluoranthene	< 10.0	ug/L	4/11/2019	13:23
Fluorene	< 10.0	ug/L	4/11/2019	13:23

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

<b>Sample Identifier:</b>		MW-103			
<b>Lab Sample ID:</b>		191302-01		<b>Date Sampled:</b>	4/2/2019
<b>Matrix:</b>		Groundwater		<b>Date Received:</b>	4/2/2019
Hexachlorobenzene	< 10.0	ug/L		4/11/2019	13:23
Hexachlorobutadiene	< 10.0	ug/L		4/11/2019	13:23
Hexachlorocyclopentadiene	< 10.0	ug/L		4/11/2019	13:23
Hexachloroethane	< 10.0	ug/L		4/11/2019	13:23
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L		4/11/2019	13:23
Isophorone	< 10.0	ug/L		4/11/2019	13:23
Naphthalene	< 10.0	ug/L		4/11/2019	13:23
Nitrobenzene	< 10.0	ug/L		4/11/2019	13:23
N-Nitroso-di-n-propylamine	< 10.0	ug/L		4/11/2019	13:23
N-Nitrosodiphenylamine	< 10.0	ug/L		4/11/2019	13:23
Pentachlorophenol	< 20.0	ug/L		4/11/2019	13:23
Phenanthrene	< 10.0	ug/L		4/11/2019	13:23
Phenol	< 10.0	ug/L		4/11/2019	13:23
Pyrene	< 10.0	ug/L		4/11/2019	13:23
<b>Surrogate</b>	<b>Percent Recovery</b>		<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
2,4,6-Tribromophenol	<b>92.7</b>		47.9 - 130		4/11/2019 13:23
2-Fluorobiphenyl	<b>36.5</b>		30.8 - 101		4/11/2019 13:23
2-Fluorophenol	<b>43.0</b>		10 - 113		4/11/2019 13:23
Nitrobenzene-d5	<b>61.9</b>		48.6 - 102		4/11/2019 13:23
Phenol-d5	<b>32.2</b>		10 - 111		4/11/2019 13:23
Terphenyl-d14	<b>93.6</b>		57.2 - 111		4/11/2019 13:23

Method Reference(s): EPA 8270D  
EPA 3510C  
Preparation Date: 4/5/2019  
Data File: B36031.D

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-103

Lab Sample ID: 191302-01

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		4/4/2019 20:58
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		4/4/2019 20:58
1,1,2-Trichloroethane	< 2.00	ug/L		4/4/2019 20:58
1,1-Dichloroethane	< 2.00	ug/L		4/4/2019 20:58
1,1-Dichloroethene	< 2.00	ug/L		4/4/2019 20:58
1,2,3-Trichlorobenzene	< 5.00	ug/L		4/4/2019 20:58
1,2,4-Trichlorobenzene	< 5.00	ug/L		4/4/2019 20:58
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		4/4/2019 20:58
1,2-Dibromoethane	< 2.00	ug/L		4/4/2019 20:58
1,2-Dichlorobenzene	< 2.00	ug/L		4/4/2019 20:58
1,2-Dichloroethane	< 2.00	ug/L		4/4/2019 20:58
1,2-Dichloropropane	< 2.00	ug/L		4/4/2019 20:58
1,3-Dichlorobenzene	< 2.00	ug/L		4/4/2019 20:58
1,4-Dichlorobenzene	< 2.00	ug/L		4/4/2019 20:58
1,4-Dioxane	< 20.0	ug/L		4/4/2019 20:58
2-Butanone	< 10.0	ug/L		4/4/2019 20:58
2-Hexanone	< 5.00	ug/L		4/4/2019 20:58
4-Methyl-2-pentanone	< 5.00	ug/L		4/4/2019 20:58
Acetone	< 10.0	ug/L		4/4/2019 20:58
Benzene	< 1.00	ug/L		4/4/2019 20:58
Bromochloromethane	< 5.00	ug/L		4/4/2019 20:58
Bromodichloromethane	< 2.00	ug/L		4/4/2019 20:58
Bromoform	< 5.00	ug/L		4/4/2019 20:58
Bromomethane	< 2.00	ug/L		4/4/2019 20:58
Carbon disulfide	< 2.00	ug/L		4/4/2019 20:58
Carbon Tetrachloride	< 2.00	ug/L		4/4/2019 20:58
Chlorobenzene	< 2.00	ug/L		4/4/2019 20:58

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-103

Lab Sample ID: 191302-01

Date Sampled: 4/2/2019

Matrix: Groundwater

Date Received: 4/2/2019

Chloroethane	< 2.00	ug/L	4/4/2019 20:58
Chloroform	< 2.00	ug/L	4/4/2019 20:58
Chloromethane	< 2.00	ug/L	4/4/2019 20:58
cis-1,2-Dichloroethene	< 2.00	ug/L	4/4/2019 20:58
cis-1,3-Dichloropropene	< 2.00	ug/L	4/4/2019 20:58
Cyclohexane	< 10.0	ug/L	4/4/2019 20:58
Dibromochloromethane	< 2.00	ug/L	4/4/2019 20:58
Dichlorodifluoromethane	< 2.00	ug/L	4/4/2019 20:58
Ethylbenzene	< 2.00	ug/L	4/4/2019 20:58
Freon 113	< 2.00	ug/L	4/4/2019 20:58
Isopropylbenzene	< 2.00	ug/L	4/4/2019 20:58
m,p-Xylene	< 2.00	ug/L	4/4/2019 20:58
Methyl acetate	< 2.00	ug/L	4/4/2019 20:58
Methyl tert-butyl Ether	< 2.00	ug/L	4/4/2019 20:58
Methylcyclohexane	< 2.00	ug/L	4/4/2019 20:58
Methylene chloride	< 5.00	ug/L	4/4/2019 20:58
o-Xylene	< 2.00	ug/L	4/4/2019 20:58
Styrene	< 5.00	ug/L	4/4/2019 20:58
Tetrachloroethene	< 2.00	ug/L	4/4/2019 20:58
Toluene	< 2.00	ug/L	4/4/2019 20:58
trans-1,2-Dichloroethene	< 2.00	ug/L	4/4/2019 20:58
trans-1,3-Dichloropropene	< 2.00	ug/L	4/4/2019 20:58
Trichloroethene	< 2.00	ug/L	4/4/2019 20:58
Trichlorofluoromethane	< 2.00	ug/L	4/4/2019 20:58
Vinyl chloride	< 2.00	ug/L	4/4/2019 20:58

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-103

Lab Sample ID: 191302-01

Date Sampled: 4/2/2019

Matrix: Groundwater

Date Received: 4/2/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	<b>130</b>	71.4 - 133		4/4/2019	20:58
4-Bromofluorobenzene	<b>81.9</b>	61.7 - 126		4/4/2019	20:58
Pentafluorobenzene	<b>88.8</b>	87.4 - 109		4/4/2019	20:58
Toluene-D8	<b>89.4</b>	82.3 - 112		4/4/2019	20:58

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x59742.D

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Report Prepared Thursday, April 18, 2019



**Lab Project ID:** 191302

**Client:** **Bergmann Associates**

**Project Reference:** VOA 1st Qtr 2019 Backlot

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**Sample Identifier:** Blind Dup

**Lab Sample ID:** 191302-02

**Date Sampled:** 4/2/2019

**Matrix:** Groundwater

**Date Received:** 4/2/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	<b>0.000523</b>	mg/L		4/10/2019 09:06

**Method Reference(s):** EPA 7470A

**Preparation Date:** 4/9/2019

**Data File:** Hg190410A

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*Report Prepared Thursday, April 18, 2019*



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: Blind Dup

Lab Sample ID: 191302-02

Date Sampled: 4/2/2019

Matrix: Groundwater

Date Received: 4/2/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	< 0.100	mg/L		4/17/2019 09:13
Antimony	< 0.0600	mg/L		4/17/2019 09:13
Arsenic	< 0.0100	mg/L		4/17/2019 09:13
Barium	<b>0.129</b>	mg/L		4/17/2019 09:13
Beryllium	< 0.00500	mg/L		4/17/2019 16:31
Cadmium	< 0.00500	mg/L		4/17/2019 09:13
Calcium	<b>107</b>	mg/L		4/17/2019 09:13
Chromium	< 0.0100	mg/L		4/17/2019 09:13
Cobalt	< 0.0500	mg/L		4/17/2019 09:13
Copper	< 0.0400	mg/L		4/17/2019 09:13
Iron	<b>2.14</b>	mg/L		4/17/2019 09:13
Lead	<b>0.00730</b>	mg/L	J	4/17/2019 16:31
Magnesium	<b>26.1</b>	mg/L		4/17/2019 09:13
Manganese	<b>0.361</b>	mg/L		4/17/2019 09:13
Nickel	< 0.0400	mg/L		4/17/2019 09:13
Potassium	<b>9.97</b>	mg/L		4/17/2019 09:13
Selenium	< 0.0200	mg/L		4/17/2019 09:13
Silver	< 0.0100	mg/L		4/17/2019 09:13
Sodium	<b>113</b>	mg/L		4/17/2019 09:13
Thallium	< 0.0250	mg/L		4/17/2019 09:13
Vanadium	< 0.0250	mg/L		4/17/2019 09:13
Zinc	<b>0.0422</b>	mg/L	J	4/17/2019 09:13

Method Reference(s): EPA 6010C  
EPA 3005A  
Preparation Date: 4/3/2019  
Data File: 190417A

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: Blind Dup

Lab Sample ID: 191302-02

Date Sampled: 4/2/2019

Matrix: Groundwater

Date Received: 4/2/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		4/11/2019 14:52
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		4/11/2019 14:52
1,2,4-Trichlorobenzene	< 10.0	ug/L		4/11/2019 14:52
1,2-Dichlorobenzene	< 10.0	ug/L		4/11/2019 14:52
1,3-Dichlorobenzene	< 10.0	ug/L		4/11/2019 14:52
1,4-Dichlorobenzene	< 10.0	ug/L		4/11/2019 14:52
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		4/11/2019 14:52
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		4/11/2019 14:52
2,4,5-Trichlorophenol	< 20.0	ug/L		4/11/2019 14:52
2,4,6-Trichlorophenol	< 10.0	ug/L		4/11/2019 14:52
2,4-Dichlorophenol	< 10.0	ug/L		4/11/2019 14:52
2,4-Dimethylphenol	< 20.0	ug/L		4/11/2019 14:52
2,4-Dinitrophenol	< 20.0	ug/L		4/11/2019 14:52
2,4-Dinitrotoluene	< 10.0	ug/L		4/11/2019 14:52
2,6-Dinitrotoluene	< 10.0	ug/L		4/11/2019 14:52
2-Chloronaphthalene	< 10.0	ug/L		4/11/2019 14:52
2-Chlorophenol	< 10.0	ug/L		4/11/2019 14:52
2-Methylnapthalene	< 10.0	ug/L		4/11/2019 14:52
2-Methylphenol	< 10.0	ug/L		4/11/2019 14:52
2-Nitroaniline	< 20.0	ug/L		4/11/2019 14:52
2-Nitrophenol	< 10.0	ug/L		4/11/2019 14:52
3&4-Methylphenol	< 10.0	ug/L		4/11/2019 14:52
3,3'-Dichlorobenzidine	< 10.0	ug/L		4/11/2019 14:52
3-Nitroaniline	< 20.0	ug/L		4/11/2019 14:52
4,6-Dinitro-2-methylphenol	< 20.0	ug/L		4/11/2019 14:52
4-Bromophenyl phenyl ether	< 10.0	ug/L		4/11/2019 14:52
4-Chloro-3-methylphenol	< 10.0	ug/L		4/11/2019 14:52

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	Blind Dup			
Lab Sample ID:	191302-02		Date Sampled:	4/2/2019
Matrix:	Groundwater		Date Received:	4/2/2019
4-Chloroaniline	< 10.0	ug/L	4/11/2019	14:52
4-Chlorophenyl phenyl ether	< 10.0	ug/L	4/11/2019	14:52
4-Nitroaniline	< 20.0	ug/L	4/11/2019	14:52
4-Nitrophenol	< 20.0	ug/L	4/11/2019	14:52
Acenaphthene	< 10.0	ug/L	4/11/2019	14:52
Acenaphthylene	< 10.0	ug/L	4/11/2019	14:52
Acetophenone	< 10.0	ug/L	4/11/2019	14:52
Anthracene	< 10.0	ug/L	4/11/2019	14:52
Atrazine	< 10.0	ug/L	4/11/2019	14:52
Benzaldehyde	< 10.0	ug/L	4/11/2019	14:52
Benzo (a) anthracene	< 10.0	ug/L	4/11/2019	14:52
Benzo (a) pyrene	< 10.0	ug/L	4/11/2019	14:52
Benzo (b) fluoranthene	< 10.0	ug/L	4/11/2019	14:52
Benzo (g,h,i) perylene	< 10.0	ug/L	4/11/2019	14:52
Benzo (k) fluoranthene	< 10.0	ug/L	4/11/2019	14:52
Bis (2-chloroethoxy) methane	< 10.0	ug/L	4/11/2019	14:52
Bis (2-chloroethyl) ether	< 10.0	ug/L	4/11/2019	14:52
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	4/11/2019	14:52
Butylbenzylphthalate	< 10.0	ug/L	4/11/2019	14:52
Caprolactam	< 10.0	ug/L	4/11/2019	14:52
Carbazole	< 10.0	ug/L	4/11/2019	14:52
Chrysene	< 10.0	ug/L	4/11/2019	14:52
Dibenz (a,h) anthracene	< 10.0	ug/L	4/11/2019	14:52
Dibenzofuran	< 10.0	ug/L	4/11/2019	14:52
Diethyl phthalate	< 10.0	ug/L	4/11/2019	14:52
Dimethyl phthalate	< 20.0	ug/L	4/11/2019	14:52
Di-n-butyl phthalate	< 10.0	ug/L	4/11/2019	14:52
Di-n-octylphthalate	< 10.0	ug/L	4/11/2019	14:52
Fluoranthene	< 10.0	ug/L	4/11/2019	14:52
Fluorene	< 10.0	ug/L	4/11/2019	14:52

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	Blind Dup				
Lab Sample ID:	191302-02			Date Sampled:	4/2/2019
Matrix:	Groundwater			Date Received:	4/2/2019
Hexachlorobenzene	< 10.0	ug/L		4/11/2019	14:52
Hexachlorobutadiene	< 10.0	ug/L		4/11/2019	14:52
Hexachlorocyclopentadiene	< 10.0	ug/L		4/11/2019	14:52
Hexachloroethane	< 10.0	ug/L		4/11/2019	14:52
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L		4/11/2019	14:52
Isophorone	< 10.0	ug/L		4/11/2019	14:52
Naphthalene	< 10.0	ug/L		4/11/2019	14:52
Nitrobenzene	< 10.0	ug/L		4/11/2019	14:52
N-Nitroso-di-n-propylamine	< 10.0	ug/L		4/11/2019	14:52
N-Nitrosodiphenylamine	< 10.0	ug/L		4/11/2019	14:52
Pentachlorophenol	< 20.0	ug/L		4/11/2019	14:52
Phenanthrene	< 10.0	ug/L		4/11/2019	14:52
Phenol	< 10.0	ug/L		4/11/2019	14:52
Pyrene	< 10.0	ug/L		4/11/2019	14:52
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>88.6</b>	47.9 - 130		4/11/2019	14:52
2-Fluorobiphenyl	<b>52.8</b>	30.8 - 101		4/11/2019	14:52
2-Fluorophenol	<b>42.5</b>	10 - 113		4/11/2019	14:52
Nitrobenzene-d5	<b>73.5</b>	48.6 - 102		4/11/2019	14:52
Phenol-d5	<b>31.7</b>	10 - 111		4/11/2019	14:52
Terphenyl-d14	<b>98.8</b>	57.2 - 111		4/11/2019	14:52

Method Reference(s): EPA 8270D  
EPA 3510C  
Preparation Date: 4/5/2019  
Data File: B36034.D

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: Blind Dup

Lab Sample ID: 191302-02

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		4/11/2019 18:45
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		4/11/2019 18:45
1,1,2-Trichloroethane	< 2.00	ug/L		4/11/2019 18:45
1,1-Dichloroethane	< 2.00	ug/L		4/11/2019 18:45
1,1-Dichloroethene	< 2.00	ug/L		4/11/2019 18:45
1,2,3-Trichlorobenzene	< 5.00	ug/L		4/11/2019 18:45
1,2,4-Trichlorobenzene	< 5.00	ug/L		4/11/2019 18:45
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		4/11/2019 18:45
1,2-Dibromoethane	< 2.00	ug/L		4/11/2019 18:45
1,2-Dichlorobenzene	< 2.00	ug/L		4/11/2019 18:45
1,2-Dichloroethane	< 2.00	ug/L		4/11/2019 18:45
1,2-Dichloropropane	< 2.00	ug/L		4/11/2019 18:45
1,3-Dichlorobenzene	< 2.00	ug/L		4/11/2019 18:45
1,4-Dichlorobenzene	< 2.00	ug/L		4/11/2019 18:45
1,4-Dioxane	< 20.0	ug/L		4/11/2019 18:45
2-Butanone	< 10.0	ug/L		4/11/2019 18:45
2-Hexanone	< 5.00	ug/L		4/11/2019 18:45
4-Methyl-2-pentanone	< 5.00	ug/L		4/11/2019 18:45
Acetone	< 10.0	ug/L		4/11/2019 18:45
Benzene	< 1.00	ug/L		4/11/2019 18:45
Bromochloromethane	< 5.00	ug/L		4/11/2019 18:45
Bromodichloromethane	< 2.00	ug/L		4/11/2019 18:45
Bromoform	< 5.00	ug/L		4/11/2019 18:45
Bromomethane	< 2.00	ug/L		4/11/2019 18:45
Carbon disulfide	< 2.00	ug/L		4/11/2019 18:45
Carbon Tetrachloride	< 2.00	ug/L		4/11/2019 18:45
Chlorobenzene	< 2.00	ug/L		4/11/2019 18:45

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	Blind Dup			
Lab Sample ID:	191302-02		Date Sampled:	4/2/2019
Matrix:	Groundwater		Date Received:	4/2/2019
Chloroethane	< 2.00	ug/L	4/11/2019	18:45
Chloroform	< 2.00	ug/L	4/11/2019	18:45
Chloromethane	< 2.00	ug/L	4/11/2019	18:45
cis-1,2-Dichloroethene	< 2.00	ug/L	4/11/2019	18:45
cis-1,3-Dichloropropene	< 2.00	ug/L	4/11/2019	18:45
Cyclohexane	< 10.0	ug/L	4/11/2019	18:45
Dibromochloromethane	< 2.00	ug/L	4/11/2019	18:45
Dichlorodifluoromethane	< 2.00	ug/L	4/11/2019	18:45
Ethylbenzene	< 2.00	ug/L	4/11/2019	18:45
Freon 113	< 2.00	ug/L	4/11/2019	18:45
Isopropylbenzene	< 2.00	ug/L	4/11/2019	18:45
m,p-Xylene	< 2.00	ug/L	4/11/2019	18:45
Methyl acetate	< 2.00	ug/L	4/11/2019	18:45
Methyl tert-butyl Ether	< 2.00	ug/L	4/11/2019	18:45
Methylcyclohexane	< 2.00	ug/L	4/11/2019	18:45
Methylene chloride	< 5.00	ug/L	4/11/2019	18:45
o-Xylene	< 2.00	ug/L	4/11/2019	18:45
Styrene	< 5.00	ug/L	4/11/2019	18:45
Tetrachloroethene	< 2.00	ug/L	4/11/2019	18:45
Toluene	< 2.00	ug/L	4/11/2019	18:45
trans-1,2-Dichloroethene	< 2.00	ug/L	4/11/2019	18:45
trans-1,3-Dichloropropene	< 2.00	ug/L	4/11/2019	18:45
Trichloroethene	< 2.00	ug/L	4/11/2019	18:45
Trichlorofluoromethane	< 2.00	ug/L	4/11/2019	18:45
Vinyl chloride	< 2.00	ug/L	4/11/2019	18:45

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: Blind Dup

Lab Sample ID: 191302-02

Date Sampled: 4/2/2019

Matrix: Groundwater

Date Received: 4/2/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	<b>152</b>	71.4 - 133	*	4/11/2019	18:45
4-Bromofluorobenzene	<b>79.3</b>	61.7 - 126		4/11/2019	18:45
Pentafluorobenzene	<b>86.5</b>	87.4 - 109	*	4/11/2019	18:45
Toluene-D8	<b>85.7</b>	82.3 - 112		4/11/2019	18:45

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x59917.D

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Thursday, April 18, 2019



**Lab Project ID:** 191302

**Client:** **Bergmann Associates**

**Project Reference:** VOA 1st Qtr 2019 Backlot

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**Sample Identifier:** MW-107

**Lab Sample ID:** 191302-03

**Date Sampled:** 4/2/2019

**Matrix:** Groundwater

**Date Received:** 4/2/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		4/10/2019 09:09

**Method Reference(s):** EPA 7470A

**Preparation Date:** 4/9/2019

**Data File:** Hg190410A

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

*Report Prepared Thursday, April 18, 2019*



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-107

Lab Sample ID: 191302-03

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	< 0.100	mg/L		4/17/2019 09:18
Antimony	< 0.0600	mg/L		4/17/2019 09:18
Arsenic	< 0.0100	mg/L		4/17/2019 09:18
Barium	<b>0.107</b>	mg/L		4/17/2019 09:18
Beryllium	< 0.00500	mg/L		4/16/2019 18:26
Cadmium	< 0.00500	mg/L		4/17/2019 09:18
Calcium	<b>219</b>	mg/L		4/17/2019 09:18
Chromium	< 0.0100	mg/L		4/17/2019 09:18
Cobalt	< 0.0500	mg/L		4/17/2019 09:18
Copper	< 0.0400	mg/L		4/17/2019 09:18
Iron	<b>4.31</b>	mg/L		4/17/2019 09:18
Lead	< 0.0100	mg/L		4/17/2019 09:18
Magnesium	<b>30.6</b>	mg/L		4/17/2019 09:18
Manganese	<b>0.418</b>	mg/L		4/17/2019 09:18
Nickel	< 0.0400	mg/L		4/17/2019 09:18
Potassium	<b>7.29</b>	mg/L		4/17/2019 09:18
Selenium	< 0.0200	mg/L		4/17/2019 09:18
Silver	< 0.0100	mg/L		4/17/2019 09:18
Sodium	<b>56.8</b>	mg/L		4/17/2019 09:18
Thallium	< 0.0250	mg/L		4/17/2019 09:18
Vanadium	< 0.0250	mg/L		4/17/2019 09:18
Zinc	< 0.0600	mg/L		4/17/2019 09:18

Method Reference(s): EPA 6010C  
EPA 3005A  
Preparation Date: 4/3/2019  
Data File: 190417A

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-107

Lab Sample ID: 191302-03

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		4/11/2019 15:22
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		4/11/2019 15:22
1,2,4-Trichlorobenzene	< 10.0	ug/L		4/11/2019 15:22
1,2-Dichlorobenzene	< 10.0	ug/L		4/11/2019 15:22
1,3-Dichlorobenzene	< 10.0	ug/L		4/11/2019 15:22
1,4-Dichlorobenzene	< 10.0	ug/L		4/11/2019 15:22
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		4/11/2019 15:22
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		4/11/2019 15:22
2,4,5-Trichlorophenol	< 20.0	ug/L		4/11/2019 15:22
2,4,6-Trichlorophenol	< 10.0	ug/L		4/11/2019 15:22
2,4-Dichlorophenol	< 10.0	ug/L		4/11/2019 15:22
2,4-Dimethylphenol	< 20.0	ug/L		4/11/2019 15:22
2,4-Dinitrophenol	< 20.0	ug/L		4/11/2019 15:22
2,4-Dinitrotoluene	< 10.0	ug/L		4/11/2019 15:22
2,6-Dinitrotoluene	< 10.0	ug/L		4/11/2019 15:22
2-Chloronaphthalene	< 10.0	ug/L		4/11/2019 15:22
2-Chlorophenol	< 10.0	ug/L		4/11/2019 15:22
2-Methylnapthalene	< 10.0	ug/L		4/11/2019 15:22
2-Methylphenol	< 10.0	ug/L		4/11/2019 15:22
2-Nitroaniline	< 20.0	ug/L		4/11/2019 15:22
2-Nitrophenol	< 10.0	ug/L		4/11/2019 15:22
3&4-Methylphenol	< 10.0	ug/L		4/11/2019 15:22
3,3'-Dichlorobenzidine	< 10.0	ug/L		4/11/2019 15:22
3-Nitroaniline	< 20.0	ug/L		4/11/2019 15:22
4,6-Dinitro-2-methylphenol	< 20.0	ug/L		4/11/2019 15:22
4-Bromophenyl phenyl ether	< 10.0	ug/L		4/11/2019 15:22
4-Chloro-3-methylphenol	< 10.0	ug/L		4/11/2019 15:22

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	MW-107			
Lab Sample ID:	191302-03		Date Sampled:	4/2/2019
Matrix:	Groundwater		Date Received:	4/2/2019
4-Chloroaniline	< 10.0	ug/L	4/11/2019	15:22
4-Chlorophenyl phenyl ether	< 10.0	ug/L	4/11/2019	15:22
4-Nitroaniline	< 20.0	ug/L	4/11/2019	15:22
4-Nitrophenol	< 20.0	ug/L	4/11/2019	15:22
Acenaphthene	< 10.0	ug/L	4/11/2019	15:22
Acenaphthylene	< 10.0	ug/L	4/11/2019	15:22
Acetophenone	< 10.0	ug/L	4/11/2019	15:22
Anthracene	< 10.0	ug/L	4/11/2019	15:22
Atrazine	< 10.0	ug/L	4/11/2019	15:22
Benzaldehyde	< 10.0	ug/L	4/11/2019	15:22
Benzo (a) anthracene	< 10.0	ug/L	4/11/2019	15:22
Benzo (a) pyrene	< 10.0	ug/L	4/11/2019	15:22
Benzo (b) fluoranthene	< 10.0	ug/L	4/11/2019	15:22
Benzo (g,h,i) perylene	< 10.0	ug/L	4/11/2019	15:22
Benzo (k) fluoranthene	< 10.0	ug/L	4/11/2019	15:22
Bis (2-chloroethoxy) methane	< 10.0	ug/L	4/11/2019	15:22
Bis (2-chloroethyl) ether	< 10.0	ug/L	4/11/2019	15:22
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	4/11/2019	15:22
Butylbenzylphthalate	< 10.0	ug/L	4/11/2019	15:22
Caprolactam	< 10.0	ug/L	4/11/2019	15:22
Carbazole	< 10.0	ug/L	4/11/2019	15:22
Chrysene	< 10.0	ug/L	4/11/2019	15:22
Dibenz (a,h) anthracene	< 10.0	ug/L	4/11/2019	15:22
Dibenzofuran	< 10.0	ug/L	4/11/2019	15:22
Diethyl phthalate	< 10.0	ug/L	4/11/2019	15:22
Dimethyl phthalate	< 20.0	ug/L	4/11/2019	15:22
Di-n-butyl phthalate	< 10.0	ug/L	4/11/2019	15:22
Di-n-octylphthalate	< 10.0	ug/L	4/11/2019	15:22
Fluoranthene	< 10.0	ug/L	4/11/2019	15:22
Fluorene	< 10.0	ug/L	4/11/2019	15:22

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

<b>Sample Identifier:</b>	MW-107		
<b>Lab Sample ID:</b>	191302-03	<b>Date Sampled:</b>	4/2/2019
<b>Matrix:</b>	Groundwater	<b>Date Received:</b>	4/2/2019

Hexachlorobenzene	< 10.0	ug/L	4/11/2019 15:22
Hexachlorobutadiene	< 10.0	ug/L	4/11/2019 15:22
Hexachlorocyclopentadiene	< 10.0	ug/L	4/11/2019 15:22
Hexachloroethane	< 10.0	ug/L	4/11/2019 15:22
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	4/11/2019 15:22
Isophorone	< 10.0	ug/L	4/11/2019 15:22
Naphthalene	< 10.0	ug/L	4/11/2019 15:22
Nitrobenzene	< 10.0	ug/L	4/11/2019 15:22
N-Nitroso-di-n-propylamine	< 10.0	ug/L	4/11/2019 15:22
N-Nitrosodiphenylamine	< 10.0	ug/L	4/11/2019 15:22
Pentachlorophenol	< 20.0	ug/L	4/11/2019 15:22
Phenanthrene	< 10.0	ug/L	4/11/2019 15:22
Phenol	< 10.0	ug/L	4/11/2019 15:22
Pyrene	< 10.0	ug/L	4/11/2019 15:22

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
2,4,6-Tribromophenol	<b>78.7</b>	47.9 - 130		4/11/2019 15:22
2-Fluorobiphenyl	<b>49.2</b>	30.8 - 101		4/11/2019 15:22
2-Fluorophenol	<b>39.1</b>	10 - 113		4/11/2019 15:22
Nitrobenzene-d5	<b>66.8</b>	48.6 - 102		4/11/2019 15:22
Phenol-d5	<b>28.5</b>	10 - 111		4/11/2019 15:22
Terphenyl-d14	<b>88.2</b>	57.2 - 111		4/11/2019 15:22

**Method Reference(s):** EPA 8270D  
EPA 3510C  
**Preparation Date:** 4/5/2019  
**Data File:** B36035.D

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-107

Lab Sample ID: 191302-03

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		4/11/2019 19:08
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		4/11/2019 19:08
1,1,2-Trichloroethane	< 2.00	ug/L		4/11/2019 19:08
1,1-Dichloroethane	< 2.00	ug/L		4/11/2019 19:08
1,1-Dichloroethene	< 2.00	ug/L		4/11/2019 19:08
1,2,3-Trichlorobenzene	< 5.00	ug/L		4/11/2019 19:08
1,2,4-Trichlorobenzene	< 5.00	ug/L		4/11/2019 19:08
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		4/11/2019 19:08
1,2-Dibromoethane	< 2.00	ug/L		4/11/2019 19:08
1,2-Dichlorobenzene	< 2.00	ug/L		4/11/2019 19:08
1,2-Dichloroethane	< 2.00	ug/L		4/11/2019 19:08
1,2-Dichloropropane	< 2.00	ug/L		4/11/2019 19:08
1,3-Dichlorobenzene	< 2.00	ug/L		4/11/2019 19:08
1,4-Dichlorobenzene	< 2.00	ug/L		4/11/2019 19:08
1,4-Dioxane	< 20.0	ug/L		4/11/2019 19:08
2-Butanone	< 10.0	ug/L		4/11/2019 19:08
2-Hexanone	< 5.00	ug/L		4/11/2019 19:08
4-Methyl-2-pentanone	< 5.00	ug/L		4/11/2019 19:08
Acetone	< 10.0	ug/L		4/11/2019 19:08
Benzene	< 1.00	ug/L		4/11/2019 19:08
Bromochloromethane	< 5.00	ug/L		4/11/2019 19:08
Bromodichloromethane	< 2.00	ug/L		4/11/2019 19:08
Bromoform	< 5.00	ug/L		4/11/2019 19:08
Bromomethane	< 2.00	ug/L		4/11/2019 19:08
Carbon disulfide	< 2.00	ug/L		4/11/2019 19:08
Carbon Tetrachloride	< 2.00	ug/L		4/11/2019 19:08
Chlorobenzene	< 2.00	ug/L		4/11/2019 19:08

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	MW-107			
Lab Sample ID:	191302-03		Date Sampled:	4/2/2019
Matrix:	Groundwater		Date Received:	4/2/2019
Chloroethane	< 2.00	ug/L	4/11/2019	19:08
Chloroform	< 2.00	ug/L	4/11/2019	19:08
Chloromethane	< 2.00	ug/L	4/11/2019	19:08
cis-1,2-Dichloroethene	< 2.00	ug/L	4/11/2019	19:08
cis-1,3-Dichloropropene	< 2.00	ug/L	4/11/2019	19:08
Cyclohexane	< 10.0	ug/L	4/11/2019	19:08
Dibromochloromethane	< 2.00	ug/L	4/11/2019	19:08
Dichlorodifluoromethane	< 2.00	ug/L	4/11/2019	19:08
Ethylbenzene	< 2.00	ug/L	4/11/2019	19:08
Freon 113	< 2.00	ug/L	4/11/2019	19:08
Isopropylbenzene	< 2.00	ug/L	4/11/2019	19:08
m,p-Xylene	< 2.00	ug/L	4/11/2019	19:08
Methyl acetate	< 2.00	ug/L	4/11/2019	19:08
Methyl tert-butyl Ether	< 2.00	ug/L	4/11/2019	19:08
Methylcyclohexane	< 2.00	ug/L	4/11/2019	19:08
Methylene chloride	< 5.00	ug/L	4/11/2019	19:08
o-Xylene	< 2.00	ug/L	4/11/2019	19:08
Styrene	< 5.00	ug/L	4/11/2019	19:08
Tetrachloroethene	< 2.00	ug/L	4/11/2019	19:08
Toluene	< 2.00	ug/L	4/11/2019	19:08
trans-1,2-Dichloroethene	< 2.00	ug/L	4/11/2019	19:08
trans-1,3-Dichloropropene	< 2.00	ug/L	4/11/2019	19:08
Trichloroethene	< 2.00	ug/L	4/11/2019	19:08
Trichlorofluoromethane	< 2.00	ug/L	4/11/2019	19:08
Vinyl chloride	< 2.00	ug/L	4/11/2019	19:08

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Report Prepared Thursday, April 18, 2019



**Lab Project ID:** 191302

**Client:** **Bergmann Associates**

**Project Reference:** VOA 1st Qtr 2019 Backlot

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**Sample Identifier:** MW-107

**Lab Sample ID:** 191302-03

**Date Sampled:** 4/2/2019

**Matrix:** Groundwater

**Date Received:** 4/2/2019

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<u><b>Surrogate</b></u>	<u><b>Percent Recovery</b></u>	<u><b>Limits</b></u>	<u><b>Outliers</b></u>	<u><b>Date Analyzed</b></u>	
1,2-Dichloroethane-d4	<b>144</b>	71.4 - 133	*	4/11/2019	19:08
4-Bromofluorobenzene	<b>77.8</b>	61.7 - 126		4/11/2019	19:08
Pentafluorobenzene	<b>90.5</b>	87.4 - 109		4/11/2019	19:08
Toluene-D8	<b>85.6</b>	82.3 - 112		4/11/2019	19:08

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:** x59918.D

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*Report Prepared Thursday, April 18, 2019*



**Lab Project ID:** 191302

**Client:** **Bergmann Associates**

**Project Reference:** VOA 1st Qtr 2019 Backlot

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**Sample Identifier:** MW-105

**Lab Sample ID:** 191302-04

**Date Sampled:** 4/2/2019

**Matrix:** Groundwater

**Date Received:** 4/2/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		4/10/2019 09:12

**Method Reference(s):** EPA 7470A

**Preparation Date:** 4/9/2019

**Data File:** Hg190410A

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*Report Prepared Thursday, April 18, 2019*



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-105

Lab Sample ID: 191302-04

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	0.0796	mg/L	J	4/17/2019 09:31
Antimony	< 0.0600	mg/L		4/17/2019 09:31
Arsenic	< 0.0100	mg/L		4/17/2019 09:31
Barium	< 0.100	mg/L		4/17/2019 09:31
Beryllium	< 0.00500	mg/L		4/16/2019 18:39
Cadmium	< 0.00500	mg/L		4/17/2019 09:31
Calcium	117	mg/L		4/17/2019 09:31
Chromium	< 0.0100	mg/L		4/17/2019 09:31
Cobalt	< 0.0500	mg/L		4/17/2019 09:31
Copper	< 0.0400	mg/L		4/17/2019 09:31
Iron	< 0.100	mg/L		4/17/2019 09:31
Lead	< 0.0100	mg/L		4/17/2019 09:31
Magnesium	128	mg/L		4/17/2019 09:31
Manganese	0.0487	mg/L		4/17/2019 09:31
Nickel	< 0.0400	mg/L		4/17/2019 09:31
Potassium	11.4	mg/L		4/17/2019 09:31
Selenium	< 0.0200	mg/L		4/17/2019 09:31
Silver	< 0.0100	mg/L		4/17/2019 09:31
Sodium	94.5	mg/L		4/17/2019 09:31
Thallium	< 0.0250	mg/L		4/17/2019 09:31
Vanadium	< 0.0250	mg/L		4/17/2019 09:31
Zinc	< 0.0600	mg/L		4/17/2019 09:31

Method Reference(s): EPA 6010C  
EPA 3005A  
Preparation Date: 4/3/2019  
Data File: 190417A

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-105

Lab Sample ID: 191302-04

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		4/11/2019 15:52
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		4/11/2019 15:52
1,2,4-Trichlorobenzene	< 10.0	ug/L		4/11/2019 15:52
1,2-Dichlorobenzene	< 10.0	ug/L		4/11/2019 15:52
1,3-Dichlorobenzene	< 10.0	ug/L		4/11/2019 15:52
1,4-Dichlorobenzene	< 10.0	ug/L		4/11/2019 15:52
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		4/11/2019 15:52
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		4/11/2019 15:52
2,4,5-Trichlorophenol	< 20.0	ug/L		4/11/2019 15:52
2,4,6-Trichlorophenol	< 10.0	ug/L		4/11/2019 15:52
2,4-Dichlorophenol	< 10.0	ug/L		4/11/2019 15:52
2,4-Dimethylphenol	< 20.0	ug/L		4/11/2019 15:52
2,4-Dinitrophenol	< 20.0	ug/L		4/11/2019 15:52
2,4-Dinitrotoluene	< 10.0	ug/L		4/11/2019 15:52
2,6-Dinitrotoluene	< 10.0	ug/L		4/11/2019 15:52
2-Chloronaphthalene	< 10.0	ug/L		4/11/2019 15:52
2-Chlorophenol	< 10.0	ug/L		4/11/2019 15:52
2-Methylnapthalene	< 10.0	ug/L		4/11/2019 15:52
2-Methylphenol	< 10.0	ug/L		4/11/2019 15:52
2-Nitroaniline	< 20.0	ug/L		4/11/2019 15:52
2-Nitrophenol	< 10.0	ug/L		4/11/2019 15:52
3&4-Methylphenol	< 10.0	ug/L		4/11/2019 15:52
3,3'-Dichlorobenzidine	< 10.0	ug/L		4/11/2019 15:52
3-Nitroaniline	< 20.0	ug/L		4/11/2019 15:52
4,6-Dinitro-2-methylphenol	< 20.0	ug/L		4/11/2019 15:52
4-Bromophenyl phenyl ether	< 10.0	ug/L		4/11/2019 15:52
4-Chloro-3-methylphenol	< 10.0	ug/L		4/11/2019 15:52

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	MW-105			
Lab Sample ID:	191302-04		Date Sampled:	4/2/2019
Matrix:	Groundwater		Date Received:	4/2/2019
4-Chloroaniline	< 10.0	ug/L	4/11/2019	15:52
4-Chlorophenyl phenyl ether	< 10.0	ug/L	4/11/2019	15:52
4-Nitroaniline	< 20.0	ug/L	4/11/2019	15:52
4-Nitrophenol	< 20.0	ug/L	4/11/2019	15:52
Acenaphthene	< 10.0	ug/L	4/11/2019	15:52
Acenaphthylene	< 10.0	ug/L	4/11/2019	15:52
Acetophenone	< 10.0	ug/L	4/11/2019	15:52
Anthracene	< 10.0	ug/L	4/11/2019	15:52
Atrazine	< 10.0	ug/L	4/11/2019	15:52
Benzaldehyde	< 10.0	ug/L	4/11/2019	15:52
Benzo (a) anthracene	< 10.0	ug/L	4/11/2019	15:52
Benzo (a) pyrene	< 10.0	ug/L	4/11/2019	15:52
Benzo (b) fluoranthene	< 10.0	ug/L	4/11/2019	15:52
Benzo (g,h,i) perylene	< 10.0	ug/L	4/11/2019	15:52
Benzo (k) fluoranthene	< 10.0	ug/L	4/11/2019	15:52
Bis (2-chloroethoxy) methane	< 10.0	ug/L	4/11/2019	15:52
Bis (2-chloroethyl) ether	< 10.0	ug/L	4/11/2019	15:52
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	4/11/2019	15:52
Butylbenzylphthalate	< 10.0	ug/L	4/11/2019	15:52
Caprolactam	< 10.0	ug/L	4/11/2019	15:52
Carbazole	< 10.0	ug/L	4/11/2019	15:52
Chrysene	< 10.0	ug/L	4/11/2019	15:52
Dibenz (a,h) anthracene	< 10.0	ug/L	4/11/2019	15:52
Dibenzofuran	< 10.0	ug/L	4/11/2019	15:52
Diethyl phthalate	< 10.0	ug/L	4/11/2019	15:52
Dimethyl phthalate	< 20.0	ug/L	4/11/2019	15:52
Di-n-butyl phthalate	< 10.0	ug/L	4/11/2019	15:52
Di-n-octylphthalate	< 10.0	ug/L	4/11/2019	15:52
Fluoranthene	< 10.0	ug/L	4/11/2019	15:52
Fluorene	< 10.0	ug/L	4/11/2019	15:52

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	MW-105				
Lab Sample ID:	191302-04		Date Sampled:	4/2/2019	
Matrix:	Groundwater		Date Received:	4/2/2019	
Hexachlorobenzene	< 10.0	ug/L		4/11/2019	15:52
Hexachlorobutadiene	< 10.0	ug/L		4/11/2019	15:52
Hexachlorocyclopentadiene	< 10.0	ug/L		4/11/2019	15:52
Hexachloroethane	< 10.0	ug/L		4/11/2019	15:52
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L		4/11/2019	15:52
Isophorone	< 10.0	ug/L		4/11/2019	15:52
Naphthalene	< 10.0	ug/L		4/11/2019	15:52
Nitrobenzene	< 10.0	ug/L		4/11/2019	15:52
N-Nitroso-di-n-propylamine	< 10.0	ug/L		4/11/2019	15:52
N-Nitrosodiphenylamine	< 10.0	ug/L		4/11/2019	15:52
Pentachlorophenol	< 20.0	ug/L		4/11/2019	15:52
Phenanthrene	< 10.0	ug/L		4/11/2019	15:52
Phenol	< 10.0	ug/L		4/11/2019	15:52
Pyrene	< 10.0	ug/L		4/11/2019	15:52
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	85.2	47.9 - 130		4/11/2019	15:52
2-Fluorobiphenyl	53.1	30.8 - 101		4/11/2019	15:52
2-Fluorophenol	43.4	10 - 113		4/11/2019	15:52
Nitrobenzene-d5	71.7	48.6 - 102		4/11/2019	15:52
Phenol-d5	31.4	10 - 111		4/11/2019	15:52
Terphenyl-d14	92.5	57.2 - 111		4/11/2019	15:52

Method Reference(s): EPA 8270D  
EPA 3510C  
Preparation Date: 4/5/2019  
Data File: B36036.D

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-105

Lab Sample ID: 191302-04

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		4/11/2019 19:31
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		4/11/2019 19:31
1,1,2-Trichloroethane	< 2.00	ug/L		4/11/2019 19:31
1,1-Dichloroethane	< 2.00	ug/L		4/11/2019 19:31
1,1-Dichloroethene	< 2.00	ug/L		4/11/2019 19:31
1,2,3-Trichlorobenzene	< 5.00	ug/L		4/11/2019 19:31
1,2,4-Trichlorobenzene	< 5.00	ug/L		4/11/2019 19:31
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		4/11/2019 19:31
1,2-Dibromoethane	< 2.00	ug/L		4/11/2019 19:31
1,2-Dichlorobenzene	< 2.00	ug/L		4/11/2019 19:31
1,2-Dichloroethane	< 2.00	ug/L		4/11/2019 19:31
1,2-Dichloropropane	< 2.00	ug/L		4/11/2019 19:31
1,3-Dichlorobenzene	< 2.00	ug/L		4/11/2019 19:31
1,4-Dichlorobenzene	< 2.00	ug/L		4/11/2019 19:31
1,4-Dioxane	< 20.0	ug/L		4/11/2019 19:31
2-Butanone	< 10.0	ug/L		4/11/2019 19:31
2-Hexanone	< 5.00	ug/L		4/11/2019 19:31
4-Methyl-2-pentanone	< 5.00	ug/L		4/11/2019 19:31
Acetone	< 10.0	ug/L		4/11/2019 19:31
Benzene	< 1.00	ug/L		4/11/2019 19:31
Bromochloromethane	< 5.00	ug/L		4/11/2019 19:31
Bromodichloromethane	< 2.00	ug/L		4/11/2019 19:31
Bromoform	< 5.00	ug/L		4/11/2019 19:31
Bromomethane	< 2.00	ug/L		4/11/2019 19:31
Carbon disulfide	< 2.00	ug/L		4/11/2019 19:31
Carbon Tetrachloride	< 2.00	ug/L		4/11/2019 19:31
Chlorobenzene	< 2.00	ug/L		4/11/2019 19:31

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	MW-105			
Lab Sample ID:	191302-04		Date Sampled:	4/2/2019
Matrix:	Groundwater		Date Received:	4/2/2019
Chloroethane	< 2.00	ug/L	4/11/2019	19:31
Chloroform	< 2.00	ug/L	4/11/2019	19:31
Chloromethane	< 2.00	ug/L	4/11/2019	19:31
cis-1,2-Dichloroethene	< 2.00	ug/L	4/11/2019	19:31
cis-1,3-Dichloropropene	< 2.00	ug/L	4/11/2019	19:31
Cyclohexane	< 10.0	ug/L	4/11/2019	19:31
Dibromochloromethane	< 2.00	ug/L	4/11/2019	19:31
Dichlorodifluoromethane	< 2.00	ug/L	4/11/2019	19:31
Ethylbenzene	< 2.00	ug/L	4/11/2019	19:31
Freon 113	< 2.00	ug/L	4/11/2019	19:31
Isopropylbenzene	< 2.00	ug/L	4/11/2019	19:31
m,p-Xylene	< 2.00	ug/L	4/11/2019	19:31
Methyl acetate	< 2.00	ug/L	4/11/2019	19:31
Methyl tert-butyl Ether	< 2.00	ug/L	4/11/2019	19:31
Methylcyclohexane	< 2.00	ug/L	4/11/2019	19:31
Methylene chloride	< 5.00	ug/L	4/11/2019	19:31
o-Xylene	< 2.00	ug/L	4/11/2019	19:31
Styrene	< 5.00	ug/L	4/11/2019	19:31
Tetrachloroethene	< 2.00	ug/L	4/11/2019	19:31
Toluene	< 2.00	ug/L	4/11/2019	19:31
trans-1,2-Dichloroethene	< 2.00	ug/L	4/11/2019	19:31
trans-1,3-Dichloropropene	< 2.00	ug/L	4/11/2019	19:31
Trichloroethene	< 2.00	ug/L	4/11/2019	19:31
Trichlorofluoromethane	< 2.00	ug/L	4/11/2019	19:31
Vinyl chloride	< 2.00	ug/L	4/11/2019	19:31

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Report Prepared Thursday, April 18, 2019



**Lab Project ID:** 191302

**Client:** **Bergmann Associates**

**Project Reference:** VOA 1st Qtr 2019 Backlot

**Sample Identifier:** MW-105

**Lab Sample ID:** 191302-04

**Date Sampled:** 4/2/2019

**Matrix:** Groundwater

**Date Received:** 4/2/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	<b>152</b>	71.4 - 133	*	4/11/2019	19:31
4-Bromofluorobenzene	<b>77.5</b>	61.7 - 126		4/11/2019	19:31
Pentafluorobenzene	<b>87.6</b>	87.4 - 109		4/11/2019	19:31
Toluene-D8	<b>86.6</b>	82.3 - 112		4/11/2019	19:31

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:** x59919.D

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*Report Prepared Thursday, April 18, 2019*



**Lab Project ID:** 191302

**Client:** **Bergmann Associates**

**Project Reference:** VOA 1st Qtr 2019 Backlot

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**Sample Identifier:** MW-106

**Lab Sample ID:** 191302-05

**Date Sampled:** 4/2/2019

**Matrix:** Groundwater

**Date Received:** 4/2/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		4/10/2019 09:15

**Method Reference(s):** EPA 7470A

**Preparation Date:** 4/9/2019

**Data File:** Hg190410A

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*Report Prepared Thursday, April 18, 2019*



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-106

Lab Sample ID: 191302-05

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	0.0721	mg/L	J	4/17/2019 09:36
Antimony	< 0.0600	mg/L		4/17/2019 09:36
Arsenic	< 0.0100	mg/L		4/17/2019 09:36
Barium	< 0.100	mg/L		4/17/2019 09:36
Beryllium	< 0.00500	mg/L		4/16/2019 18:43
Cadmium	< 0.00500	mg/L		4/17/2019 09:36
Calcium	45.2	mg/L		4/17/2019 09:36
Chromium	< 0.0100	mg/L		4/17/2019 09:36
Cobalt	< 0.0500	mg/L		4/17/2019 09:36
Copper	< 0.0400	mg/L		4/17/2019 09:36
Iron	0.366	mg/L		4/17/2019 09:36
Lead	< 0.0100	mg/L		4/17/2019 09:36
Magnesium	10.2	mg/L		4/17/2019 09:36
Manganese	0.0263	mg/L		4/17/2019 09:36
Nickel	< 0.0400	mg/L		4/17/2019 09:36
Potassium	2.19	mg/L	J	4/17/2019 09:36
Selenium	< 0.0200	mg/L		4/17/2019 09:36
Silver	< 0.0100	mg/L		4/17/2019 09:36
Sodium	25.1	mg/L		4/17/2019 09:36
Thallium	< 0.0250	mg/L		4/17/2019 09:36
Vanadium	< 0.0250	mg/L		4/17/2019 09:36
Zinc	< 0.0600	mg/L		4/17/2019 09:36

Method Reference(s): EPA 6010C  
EPA 3005A  
Preparation Date: 4/3/2019  
Data File: 190417A

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-106

Lab Sample ID: 191302-05

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		4/11/2019 16:22
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		4/11/2019 16:22
1,2,4-Trichlorobenzene	< 10.0	ug/L		4/11/2019 16:22
1,2-Dichlorobenzene	< 10.0	ug/L		4/11/2019 16:22
1,3-Dichlorobenzene	< 10.0	ug/L		4/11/2019 16:22
1,4-Dichlorobenzene	< 10.0	ug/L		4/11/2019 16:22
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		4/11/2019 16:22
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		4/11/2019 16:22
2,4,5-Trichlorophenol	< 20.0	ug/L		4/11/2019 16:22
2,4,6-Trichlorophenol	< 10.0	ug/L		4/11/2019 16:22
2,4-Dichlorophenol	< 10.0	ug/L		4/11/2019 16:22
2,4-Dimethylphenol	< 20.0	ug/L		4/11/2019 16:22
2,4-Dinitrophenol	< 20.0	ug/L		4/11/2019 16:22
2,4-Dinitrotoluene	< 10.0	ug/L		4/11/2019 16:22
2,6-Dinitrotoluene	< 10.0	ug/L		4/11/2019 16:22
2-Chloronaphthalene	< 10.0	ug/L		4/11/2019 16:22
2-Chlorophenol	< 10.0	ug/L		4/11/2019 16:22
2-Methylnapthalene	< 10.0	ug/L		4/11/2019 16:22
2-Methylphenol	< 10.0	ug/L		4/11/2019 16:22
2-Nitroaniline	< 20.0	ug/L		4/11/2019 16:22
2-Nitrophenol	< 10.0	ug/L		4/11/2019 16:22
3&4-Methylphenol	< 10.0	ug/L		4/11/2019 16:22
3,3'-Dichlorobenzidine	< 10.0	ug/L		4/11/2019 16:22
3-Nitroaniline	< 20.0	ug/L		4/11/2019 16:22
4,6-Dinitro-2-methylphenol	< 20.0	ug/L		4/11/2019 16:22
4-Bromophenyl phenyl ether	< 10.0	ug/L		4/11/2019 16:22
4-Chloro-3-methylphenol	< 10.0	ug/L		4/11/2019 16:22

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	MW-106			
Lab Sample ID:	191302-05		Date Sampled:	4/2/2019
Matrix:	Groundwater		Date Received:	4/2/2019
4-Chloroaniline	< 10.0	ug/L	4/11/2019	16:22
4-Chlorophenyl phenyl ether	< 10.0	ug/L	4/11/2019	16:22
4-Nitroaniline	< 20.0	ug/L	4/11/2019	16:22
4-Nitrophenol	< 20.0	ug/L	4/11/2019	16:22
Acenaphthene	< 10.0	ug/L	4/11/2019	16:22
Acenaphthylene	< 10.0	ug/L	4/11/2019	16:22
Acetophenone	< 10.0	ug/L	4/11/2019	16:22
Anthracene	< 10.0	ug/L	4/11/2019	16:22
Atrazine	< 10.0	ug/L	4/11/2019	16:22
Benzaldehyde	< 10.0	ug/L	4/11/2019	16:22
Benzo (a) anthracene	< 10.0	ug/L	4/11/2019	16:22
Benzo (a) pyrene	< 10.0	ug/L	4/11/2019	16:22
Benzo (b) fluoranthene	< 10.0	ug/L	4/11/2019	16:22
Benzo (g,h,i) perylene	< 10.0	ug/L	4/11/2019	16:22
Benzo (k) fluoranthene	< 10.0	ug/L	4/11/2019	16:22
Bis (2-chloroethoxy) methane	< 10.0	ug/L	4/11/2019	16:22
Bis (2-chloroethyl) ether	< 10.0	ug/L	4/11/2019	16:22
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	4/11/2019	16:22
Butylbenzylphthalate	< 10.0	ug/L	4/11/2019	16:22
Caprolactam	< 10.0	ug/L	4/11/2019	16:22
Carbazole	< 10.0	ug/L	4/11/2019	16:22
Chrysene	< 10.0	ug/L	4/11/2019	16:22
Dibenz (a,h) anthracene	< 10.0	ug/L	4/11/2019	16:22
Dibenzofuran	< 10.0	ug/L	4/11/2019	16:22
Diethyl phthalate	< 10.0	ug/L	4/11/2019	16:22
Dimethyl phthalate	< 20.0	ug/L	4/11/2019	16:22
Di-n-butyl phthalate	< 10.0	ug/L	4/11/2019	16:22
Di-n-octylphthalate	< 10.0	ug/L	4/11/2019	16:22
Fluoranthene	< 10.0	ug/L	4/11/2019	16:22
Fluorene	< 10.0	ug/L	4/11/2019	16:22

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

<b>Sample Identifier:</b>		MW-106			
<b>Lab Sample ID:</b>		191302-05		<b>Date Sampled:</b>	4/2/2019
<b>Matrix:</b>		Groundwater		<b>Date Received:</b>	4/2/2019
Hexachlorobenzene	< 10.0	ug/L		4/11/2019	16:22
Hexachlorobutadiene	< 10.0	ug/L		4/11/2019	16:22
Hexachlorocyclopentadiene	< 10.0	ug/L		4/11/2019	16:22
Hexachloroethane	< 10.0	ug/L		4/11/2019	16:22
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L		4/11/2019	16:22
Isophorone	< 10.0	ug/L		4/11/2019	16:22
Naphthalene	< 10.0	ug/L		4/11/2019	16:22
Nitrobenzene	< 10.0	ug/L		4/11/2019	16:22
N-Nitroso-di-n-propylamine	< 10.0	ug/L		4/11/2019	16:22
N-Nitrosodiphenylamine	< 10.0	ug/L		4/11/2019	16:22
Pentachlorophenol	< 20.0	ug/L		4/11/2019	16:22
Phenanthrene	< 10.0	ug/L		4/11/2019	16:22
Phenol	< 10.0	ug/L		4/11/2019	16:22
Pyrene	< 10.0	ug/L		4/11/2019	16:22
<b>Surrogate</b>	<b>Percent Recovery</b>		<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
2,4,6-Tribromophenol	<b>88.2</b>		47.9 - 130		4/11/2019 16:22
2-Fluorobiphenyl	<b>64.1</b>		30.8 - 101		4/11/2019 16:22
2-Fluorophenol	<b>44.2</b>		10 - 113		4/11/2019 16:22
Nitrobenzene-d5	<b>77.8</b>		48.6 - 102		4/11/2019 16:22
Phenol-d5	<b>32.1</b>		10 - 111		4/11/2019 16:22
Terphenyl-d14	<b>97.1</b>		57.2 - 111		4/11/2019 16:22

Method Reference(s): EPA 8270D  
EPA 3510C  
Preparation Date: 4/5/2019  
Data File: B36037.D

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-106

Lab Sample ID: 191302-05

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		4/11/2019 19:54
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		4/11/2019 19:54
1,1,2-Trichloroethane	< 2.00	ug/L		4/11/2019 19:54
1,1-Dichloroethane	< 2.00	ug/L		4/11/2019 19:54
1,1-Dichloroethene	< 2.00	ug/L		4/11/2019 19:54
1,2,3-Trichlorobenzene	< 5.00	ug/L		4/11/2019 19:54
1,2,4-Trichlorobenzene	< 5.00	ug/L		4/11/2019 19:54
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		4/11/2019 19:54
1,2-Dibromoethane	< 2.00	ug/L		4/11/2019 19:54
1,2-Dichlorobenzene	< 2.00	ug/L		4/11/2019 19:54
1,2-Dichloroethane	< 2.00	ug/L		4/11/2019 19:54
1,2-Dichloropropane	< 2.00	ug/L		4/11/2019 19:54
1,3-Dichlorobenzene	< 2.00	ug/L		4/11/2019 19:54
1,4-Dichlorobenzene	< 2.00	ug/L		4/11/2019 19:54
1,4-Dioxane	< 20.0	ug/L		4/11/2019 19:54
2-Butanone	< 10.0	ug/L		4/11/2019 19:54
2-Hexanone	< 5.00	ug/L		4/11/2019 19:54
4-Methyl-2-pentanone	< 5.00	ug/L		4/11/2019 19:54
Acetone	< 10.0	ug/L		4/11/2019 19:54
Benzene	< 1.00	ug/L		4/11/2019 19:54
Bromochloromethane	< 5.00	ug/L		4/11/2019 19:54
Bromodichloromethane	< 2.00	ug/L		4/11/2019 19:54
Bromoform	< 5.00	ug/L		4/11/2019 19:54
Bromomethane	< 2.00	ug/L		4/11/2019 19:54
Carbon disulfide	< 2.00	ug/L		4/11/2019 19:54
Carbon Tetrachloride	< 2.00	ug/L		4/11/2019 19:54
Chlorobenzene	< 2.00	ug/L		4/11/2019 19:54

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	MW-106			
Lab Sample ID:	191302-05		Date Sampled:	4/2/2019
Matrix:	Groundwater		Date Received:	4/2/2019
Chloroethane	< 2.00	ug/L	4/11/2019	19:54
Chloroform	< 2.00	ug/L	4/11/2019	19:54
Chloromethane	< 2.00	ug/L	4/11/2019	19:54
cis-1,2-Dichloroethene	< 2.00	ug/L	4/11/2019	19:54
cis-1,3-Dichloropropene	< 2.00	ug/L	4/11/2019	19:54
Cyclohexane	< 10.0	ug/L	4/11/2019	19:54
Dibromochloromethane	< 2.00	ug/L	4/11/2019	19:54
Dichlorodifluoromethane	< 2.00	ug/L	4/11/2019	19:54
Ethylbenzene	< 2.00	ug/L	4/11/2019	19:54
Freon 113	< 2.00	ug/L	4/11/2019	19:54
Isopropylbenzene	< 2.00	ug/L	4/11/2019	19:54
m,p-Xylene	< 2.00	ug/L	4/11/2019	19:54
Methyl acetate	< 2.00	ug/L	4/11/2019	19:54
Methyl tert-butyl Ether	< 2.00	ug/L	4/11/2019	19:54
Methylcyclohexane	< 2.00	ug/L	4/11/2019	19:54
Methylene chloride	< 5.00	ug/L	4/11/2019	19:54
o-Xylene	< 2.00	ug/L	4/11/2019	19:54
Styrene	< 5.00	ug/L	4/11/2019	19:54
Tetrachloroethene	< 2.00	ug/L	4/11/2019	19:54
Toluene	< 2.00	ug/L	4/11/2019	19:54
trans-1,2-Dichloroethene	< 2.00	ug/L	4/11/2019	19:54
trans-1,3-Dichloropropene	< 2.00	ug/L	4/11/2019	19:54
Trichloroethene	< 2.00	ug/L	4/11/2019	19:54
Trichlorofluoromethane	< 2.00	ug/L	4/11/2019	19:54
Vinyl chloride	< 2.00	ug/L	4/11/2019	19:54

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-106

Lab Sample ID: 191302-05

Date Sampled: 4/2/2019

Matrix: Groundwater

Date Received: 4/2/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	<b>149</b>	71.4 - 133	*	4/11/2019	19:54
4-Bromofluorobenzene	<b>79.5</b>	61.7 - 126		4/11/2019	19:54
Pentafluorobenzene	<b>87.5</b>	87.4 - 109		4/11/2019	19:54
Toluene-D8	<b>87.7</b>	82.3 - 112		4/11/2019	19:54

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x59920.D

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Report Prepared Thursday, April 18, 2019



**Lab Project ID:** 191302

**Client:** **Bergmann Associates**

**Project Reference:** VOA 1st Qtr 2019 Backlot

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**Sample Identifier:** MWR-101

**Lab Sample ID:** 191302-06

**Date Sampled:** 4/2/2019

**Matrix:** Groundwater

**Date Received:** 4/2/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		4/10/2019 09:23

**Method Reference(s):** EPA 7470A

**Preparation Date:** 4/9/2019

**Data File:** Hg190410A

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

*Report Prepared Thursday, April 18, 2019*



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MWR-101

Lab Sample ID: 191302-06

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	<b>0.0887</b>	mg/L	J	4/17/2019 09:40
Antimony	< 0.0600	mg/L		4/17/2019 09:40
Arsenic	< 0.0100	mg/L		4/17/2019 09:40
Barium	<b>0.104</b>	mg/L		4/17/2019 09:40
Beryllium	< 0.00500	mg/L		4/16/2019 18:47
Cadmium	< 0.00500	mg/L		4/17/2019 09:40
Calcium	<b>65.2</b>	mg/L		4/17/2019 09:40
Chromium	< 0.0100	mg/L		4/17/2019 09:40
Cobalt	< 0.0500	mg/L		4/17/2019 09:40
Copper	< 0.0400	mg/L		4/17/2019 09:40
Iron	<b>0.306</b>	mg/L		4/17/2019 09:40
Lead	< 0.0100	mg/L		4/17/2019 09:40
Magnesium	<b>20.8</b>	mg/L		4/17/2019 09:40
Manganese	<b>0.164</b>	mg/L		4/17/2019 09:40
Nickel	< 0.0400	mg/L		4/17/2019 09:40
Potassium	<b>8.46</b>	mg/L		4/17/2019 09:40
Selenium	< 0.0200	mg/L		4/17/2019 09:40
Silver	< 0.0100	mg/L		4/17/2019 09:40
Sodium	<b>3020</b>	mg/L		4/17/2019 09:57
Thallium	< 0.0250	mg/L		4/17/2019 09:40
Vanadium	< 0.0250	mg/L		4/17/2019 09:40
Zinc	<b>0.0367</b>	mg/L	J	4/17/2019 09:40

Method Reference(s): EPA 6010C  
EPA 3005A  
Preparation Date: 4/3/2019  
Data File: 190417A

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MWR-101

Lab Sample ID: 191302-06

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		4/11/2019 16:52
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		4/11/2019 16:52
1,2,4-Trichlorobenzene	< 10.0	ug/L		4/11/2019 16:52
1,2-Dichlorobenzene	< 10.0	ug/L		4/11/2019 16:52
1,3-Dichlorobenzene	< 10.0	ug/L		4/11/2019 16:52
1,4-Dichlorobenzene	< 10.0	ug/L		4/11/2019 16:52
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		4/11/2019 16:52
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		4/11/2019 16:52
2,4,5-Trichlorophenol	< 20.0	ug/L		4/11/2019 16:52
2,4,6-Trichlorophenol	< 10.0	ug/L		4/11/2019 16:52
2,4-Dichlorophenol	< 10.0	ug/L		4/11/2019 16:52
2,4-Dimethylphenol	< 20.0	ug/L		4/11/2019 16:52
2,4-Dinitrophenol	< 20.0	ug/L		4/11/2019 16:52
2,4-Dinitrotoluene	< 10.0	ug/L		4/11/2019 16:52
2,6-Dinitrotoluene	< 10.0	ug/L		4/11/2019 16:52
2-Chloronaphthalene	< 10.0	ug/L		4/11/2019 16:52
2-Chlorophenol	< 10.0	ug/L		4/11/2019 16:52
2-Methylnapthalene	< 10.0	ug/L		4/11/2019 16:52
2-Methylphenol	< 10.0	ug/L		4/11/2019 16:52
2-Nitroaniline	< 20.0	ug/L		4/11/2019 16:52
2-Nitrophenol	< 10.0	ug/L		4/11/2019 16:52
3&4-Methylphenol	< 10.0	ug/L		4/11/2019 16:52
3,3'-Dichlorobenzidine	< 10.0	ug/L		4/11/2019 16:52
3-Nitroaniline	< 20.0	ug/L		4/11/2019 16:52
4,6-Dinitro-2-methylphenol	< 20.0	ug/L		4/11/2019 16:52
4-Bromophenyl phenyl ether	< 10.0	ug/L		4/11/2019 16:52
4-Chloro-3-methylphenol	< 10.0	ug/L		4/11/2019 16:52

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	MWR-101			
Lab Sample ID:	191302-06		Date Sampled:	4/2/2019
Matrix:	Groundwater		Date Received:	4/2/2019
4-Chloroaniline	< 10.0	ug/L	4/11/2019	16:52
4-Chlorophenyl phenyl ether	< 10.0	ug/L	4/11/2019	16:52
4-Nitroaniline	< 20.0	ug/L	4/11/2019	16:52
4-Nitrophenol	< 20.0	ug/L	4/11/2019	16:52
Acenaphthene	< 10.0	ug/L	4/11/2019	16:52
Acenaphthylene	< 10.0	ug/L	4/11/2019	16:52
Acetophenone	< 10.0	ug/L	4/11/2019	16:52
Anthracene	< 10.0	ug/L	4/11/2019	16:52
Atrazine	< 10.0	ug/L	4/11/2019	16:52
Benzaldehyde	< 10.0	ug/L	4/11/2019	16:52
Benzo (a) anthracene	< 10.0	ug/L	4/11/2019	16:52
Benzo (a) pyrene	< 10.0	ug/L	4/11/2019	16:52
Benzo (b) fluoranthene	< 10.0	ug/L	4/11/2019	16:52
Benzo (g,h,i) perylene	< 10.0	ug/L	4/11/2019	16:52
Benzo (k) fluoranthene	< 10.0	ug/L	4/11/2019	16:52
Bis (2-chloroethoxy) methane	< 10.0	ug/L	4/11/2019	16:52
Bis (2-chloroethyl) ether	< 10.0	ug/L	4/11/2019	16:52
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	4/11/2019	16:52
Butylbenzylphthalate	< 10.0	ug/L	4/11/2019	16:52
Caprolactam	< 10.0	ug/L	4/11/2019	16:52
Carbazole	< 10.0	ug/L	4/11/2019	16:52
Chrysene	< 10.0	ug/L	4/11/2019	16:52
Dibenz (a,h) anthracene	< 10.0	ug/L	4/11/2019	16:52
Dibenzofuran	< 10.0	ug/L	4/11/2019	16:52
Diethyl phthalate	< 10.0	ug/L	4/11/2019	16:52
Dimethyl phthalate	< 20.0	ug/L	4/11/2019	16:52
Di-n-butyl phthalate	< 10.0	ug/L	4/11/2019	16:52
Di-n-octylphthalate	< 10.0	ug/L	4/11/2019	16:52
Fluoranthene	< 10.0	ug/L	4/11/2019	16:52
Fluorene	< 10.0	ug/L	4/11/2019	16:52

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	MWR-101			
Lab Sample ID:	191302-06		Date Sampled:	4/2/2019
Matrix:	Groundwater		Date Received:	4/2/2019
Hexachlorobenzene	< 10.0	ug/L	4/11/2019	16:52
Hexachlorobutadiene	< 10.0	ug/L	4/11/2019	16:52
Hexachlorocyclopentadiene	< 10.0	ug/L	4/11/2019	16:52
Hexachloroethane	< 10.0	ug/L	4/11/2019	16:52
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	4/11/2019	16:52
Isophorone	< 10.0	ug/L	4/11/2019	16:52
Naphthalene	< 10.0	ug/L	4/11/2019	16:52
Nitrobenzene	< 10.0	ug/L	4/11/2019	16:52
N-Nitroso-di-n-propylamine	< 10.0	ug/L	4/11/2019	16:52
N-Nitrosodiphenylamine	< 10.0	ug/L	4/11/2019	16:52
Pentachlorophenol	< 20.0	ug/L	4/11/2019	16:52
Phenanthrene	< 10.0	ug/L	4/11/2019	16:52
Phenol	< 10.0	ug/L	4/11/2019	16:52
Pyrene	< 10.0	ug/L	4/11/2019	16:52
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
2,4,6-Tribromophenol	<b>93.6</b>	47.9 - 130		4/11/2019 16:52
2-Fluorobiphenyl	<b>64.4</b>	30.8 - 101		4/11/2019 16:52
2-Fluorophenol	<b>48.0</b>	10 - 113		4/11/2019 16:52
Nitrobenzene-d5	<b>78.8</b>	48.6 - 102		4/11/2019 16:52
Phenol-d5	<b>34.3</b>	10 - 111		4/11/2019 16:52
Terphenyl-d14	<b>95.2</b>	57.2 - 111		4/11/2019 16:52

Method Reference(s): EPA 8270D  
EPA 3510C  
Preparation Date: 4/5/2019  
Data File: B36038.D

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MWR-101

Lab Sample ID: 191302-06

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		4/11/2019 20:17
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		4/11/2019 20:17
1,1,2-Trichloroethane	< 2.00	ug/L		4/11/2019 20:17
1,1-Dichloroethane	< 2.00	ug/L		4/11/2019 20:17
1,1-Dichloroethene	< 2.00	ug/L		4/11/2019 20:17
1,2,3-Trichlorobenzene	< 5.00	ug/L		4/11/2019 20:17
1,2,4-Trichlorobenzene	< 5.00	ug/L		4/11/2019 20:17
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		4/11/2019 20:17
1,2-Dibromoethane	< 2.00	ug/L		4/11/2019 20:17
1,2-Dichlorobenzene	< 2.00	ug/L		4/11/2019 20:17
1,2-Dichloroethane	< 2.00	ug/L		4/11/2019 20:17
1,2-Dichloropropane	< 2.00	ug/L		4/11/2019 20:17
1,3-Dichlorobenzene	< 2.00	ug/L		4/11/2019 20:17
1,4-Dichlorobenzene	< 2.00	ug/L		4/11/2019 20:17
1,4-Dioxane	< 20.0	ug/L		4/11/2019 20:17
2-Butanone	< 10.0	ug/L		4/11/2019 20:17
2-Hexanone	< 5.00	ug/L		4/11/2019 20:17
4-Methyl-2-pentanone	< 5.00	ug/L		4/11/2019 20:17
Acetone	< 10.0	ug/L		4/11/2019 20:17
Benzene	< 1.00	ug/L		4/11/2019 20:17
Bromochloromethane	< 5.00	ug/L		4/11/2019 20:17
Bromodichloromethane	< 2.00	ug/L		4/11/2019 20:17
Bromoform	< 5.00	ug/L		4/11/2019 20:17
Bromomethane	< 2.00	ug/L		4/11/2019 20:17
Carbon disulfide	< 2.00	ug/L		4/11/2019 20:17
Carbon Tetrachloride	< 2.00	ug/L		4/11/2019 20:17
Chlorobenzene	< 2.00	ug/L		4/11/2019 20:17

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	MWR-101			
Lab Sample ID:	191302-06		Date Sampled:	4/2/2019
Matrix:	Groundwater		Date Received:	4/2/2019
Chloroethane	< 2.00	ug/L		4/11/2019 20:17
Chloroform	< 2.00	ug/L		4/11/2019 20:17
Chloromethane	< 2.00	ug/L		4/11/2019 20:17
cis-1,2-Dichloroethene	1.71	ug/L	J	4/11/2019 20:17
cis-1,3-Dichloropropene	< 2.00	ug/L		4/11/2019 20:17
Cyclohexane	< 10.0	ug/L		4/11/2019 20:17
Dibromochloromethane	< 2.00	ug/L		4/11/2019 20:17
Dichlorodifluoromethane	< 2.00	ug/L		4/11/2019 20:17
Ethylbenzene	< 2.00	ug/L		4/11/2019 20:17
Freon 113	< 2.00	ug/L		4/11/2019 20:17
Isopropylbenzene	< 2.00	ug/L		4/11/2019 20:17
m,p-Xylene	< 2.00	ug/L		4/11/2019 20:17
Methyl acetate	< 2.00	ug/L		4/11/2019 20:17
Methyl tert-butyl Ether	< 2.00	ug/L		4/11/2019 20:17
Methylcyclohexane	< 2.00	ug/L		4/11/2019 20:17
Methylene chloride	< 5.00	ug/L		4/11/2019 20:17
o-Xylene	< 2.00	ug/L		4/11/2019 20:17
Styrene	< 5.00	ug/L		4/11/2019 20:17
Tetrachloroethene	< 2.00	ug/L		4/11/2019 20:17
Toluene	< 2.00	ug/L		4/11/2019 20:17
trans-1,2-Dichloroethene	< 2.00	ug/L		4/11/2019 20:17
trans-1,3-Dichloropropene	< 2.00	ug/L		4/11/2019 20:17
Trichloroethene	< 2.00	ug/L		4/11/2019 20:17
Trichlorofluoromethane	< 2.00	ug/L		4/11/2019 20:17
Vinyl chloride	< 2.00	ug/L		4/11/2019 20:17

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MWR-101

Lab Sample ID: 191302-06

Date Sampled: 4/2/2019

Matrix: Groundwater

Date Received: 4/2/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	<b>149</b>	71.4 - 133	*	4/11/2019	20:17
4-Bromofluorobenzene	<b>76.9</b>	61.7 - 126		4/11/2019	20:17
Pentafluorobenzene	<b>92.2</b>	87.4 - 109		4/11/2019	20:17
Toluene-D8	<b>85.8</b>	82.3 - 112		4/11/2019	20:17

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x59921.D

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Report Prepared Thursday, April 18, 2019



**Lab Project ID:** 191302

**Client:** **Bergmann Associates**

**Project Reference:** VOA 1st Qtr 2019 Backlot

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**Sample Identifier:** MW-101

**Lab Sample ID:** 191302-07

**Date Sampled:** 4/2/2019

**Matrix:** Groundwater

**Date Received:** 4/2/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		4/10/2019 09:26

**Method Reference(s):** EPA 7470A

**Preparation Date:** 4/9/2019

**Data File:** Hg190410A

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*Report Prepared Thursday, April 18, 2019*



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-101

Lab Sample ID: 191302-07

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	< 0.100	mg/L		4/17/2019 09:44
Antimony	< 0.0600	mg/L		4/17/2019 09:44
Arsenic	< 0.0100	mg/L		4/17/2019 09:44
Barium	<b>0.169</b>	mg/L		4/17/2019 09:44
Beryllium	< 0.00500	mg/L		4/16/2019 18:52
Cadmium	< 0.00500	mg/L		4/17/2019 09:44
Calcium	<b>108</b>	mg/L		4/17/2019 09:44
Chromium	< 0.0100	mg/L		4/17/2019 09:44
Cobalt	< 0.0500	mg/L		4/17/2019 09:44
Copper	< 0.0400	mg/L		4/17/2019 09:44
Iron	<b>10.9</b>	mg/L		4/17/2019 09:44
Lead	< 0.0100	mg/L		4/17/2019 09:44
Magnesium	<b>27.1</b>	mg/L		4/17/2019 09:44
Manganese	<b>0.412</b>	mg/L		4/17/2019 09:44
Nickel	< 0.0400	mg/L		4/17/2019 09:44
Potassium	<b>9.23</b>	mg/L		4/17/2019 09:44
Selenium	< 0.0200	mg/L		4/17/2019 09:44
Silver	< 0.0100	mg/L		4/17/2019 09:44
Sodium	<b>176</b>	mg/L		4/17/2019 09:44
Thallium	< 0.0250	mg/L		4/17/2019 09:44
Vanadium	< 0.0250	mg/L		4/17/2019 09:44
Zinc	< 0.0600	mg/L		4/17/2019 09:44

Method Reference(s): EPA 6010C  
EPA 3005A  
Preparation Date: 4/3/2019  
Data File: 190417A

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-101

Lab Sample ID: 191302-07

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		4/11/2019 17:21
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		4/11/2019 17:21
1,2,4-Trichlorobenzene	< 10.0	ug/L		4/11/2019 17:21
1,2-Dichlorobenzene	< 10.0	ug/L		4/11/2019 17:21
1,3-Dichlorobenzene	< 10.0	ug/L		4/11/2019 17:21
1,4-Dichlorobenzene	< 10.0	ug/L		4/11/2019 17:21
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		4/11/2019 17:21
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		4/11/2019 17:21
2,4,5-Trichlorophenol	< 20.0	ug/L		4/11/2019 17:21
2,4,6-Trichlorophenol	< 10.0	ug/L		4/11/2019 17:21
2,4-Dichlorophenol	< 10.0	ug/L		4/11/2019 17:21
2,4-Dimethylphenol	< 20.0	ug/L		4/11/2019 17:21
2,4-Dinitrophenol	< 20.0	ug/L		4/11/2019 17:21
2,4-Dinitrotoluene	< 10.0	ug/L		4/11/2019 17:21
2,6-Dinitrotoluene	< 10.0	ug/L		4/11/2019 17:21
2-Chloronaphthalene	< 10.0	ug/L		4/11/2019 17:21
2-Chlorophenol	< 10.0	ug/L		4/11/2019 17:21
2-Methylnapthalene	< 10.0	ug/L		4/11/2019 17:21
2-Methylphenol	< 10.0	ug/L		4/11/2019 17:21
2-Nitroaniline	< 20.0	ug/L		4/11/2019 17:21
2-Nitrophenol	< 10.0	ug/L		4/11/2019 17:21
3&4-Methylphenol	< 10.0	ug/L		4/11/2019 17:21
3,3'-Dichlorobenzidine	< 10.0	ug/L		4/11/2019 17:21
3-Nitroaniline	< 20.0	ug/L		4/11/2019 17:21
4,6-Dinitro-2-methylphenol	< 20.0	ug/L		4/11/2019 17:21
4-Bromophenyl phenyl ether	< 10.0	ug/L		4/11/2019 17:21
4-Chloro-3-methylphenol	< 10.0	ug/L		4/11/2019 17:21

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	MW-101			
Lab Sample ID:	191302-07		Date Sampled:	4/2/2019
Matrix:	Groundwater		Date Received:	4/2/2019
4-Chloroaniline	< 10.0	ug/L	4/11/2019	17:21
4-Chlorophenyl phenyl ether	< 10.0	ug/L	4/11/2019	17:21
4-Nitroaniline	< 20.0	ug/L	4/11/2019	17:21
4-Nitrophenol	< 20.0	ug/L	4/11/2019	17:21
Acenaphthene	< 10.0	ug/L	4/11/2019	17:21
Acenaphthylene	< 10.0	ug/L	4/11/2019	17:21
Acetophenone	< 10.0	ug/L	4/11/2019	17:21
Anthracene	< 10.0	ug/L	4/11/2019	17:21
Atrazine	< 10.0	ug/L	4/11/2019	17:21
Benzaldehyde	< 10.0	ug/L	4/11/2019	17:21
Benzo (a) anthracene	< 10.0	ug/L	4/11/2019	17:21
Benzo (a) pyrene	< 10.0	ug/L	4/11/2019	17:21
Benzo (b) fluoranthene	< 10.0	ug/L	4/11/2019	17:21
Benzo (g,h,i) perylene	< 10.0	ug/L	4/11/2019	17:21
Benzo (k) fluoranthene	< 10.0	ug/L	4/11/2019	17:21
Bis (2-chloroethoxy) methane	< 10.0	ug/L	4/11/2019	17:21
Bis (2-chloroethyl) ether	< 10.0	ug/L	4/11/2019	17:21
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	4/11/2019	17:21
Butylbenzylphthalate	< 10.0	ug/L	4/11/2019	17:21
Caprolactam	< 10.0	ug/L	4/11/2019	17:21
Carbazole	< 10.0	ug/L	4/11/2019	17:21
Chrysene	< 10.0	ug/L	4/11/2019	17:21
Dibenz (a,h) anthracene	< 10.0	ug/L	4/11/2019	17:21
Dibenzofuran	< 10.0	ug/L	4/11/2019	17:21
Diethyl phthalate	< 10.0	ug/L	4/11/2019	17:21
Dimethyl phthalate	< 20.0	ug/L	4/11/2019	17:21
Di-n-butyl phthalate	< 10.0	ug/L	4/11/2019	17:21
Di-n-octylphthalate	< 10.0	ug/L	4/11/2019	17:21
Fluoranthene	< 10.0	ug/L	4/11/2019	17:21
Fluorene	< 10.0	ug/L	4/11/2019	17:21

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-101

Lab Sample ID: 191302-07

Date Sampled: 4/2/2019

Matrix: Groundwater

Date Received: 4/2/2019

Hexachlorobenzene	< 10.0	ug/L	4/11/2019	17:21
Hexachlorobutadiene	< 10.0	ug/L	4/11/2019	17:21
Hexachlorocyclopentadiene	< 10.0	ug/L	4/11/2019	17:21
Hexachloroethane	< 10.0	ug/L	4/11/2019	17:21
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	4/11/2019	17:21
Isophorone	< 10.0	ug/L	4/11/2019	17:21
Naphthalene	< 10.0	ug/L	4/11/2019	17:21
Nitrobenzene	< 10.0	ug/L	4/11/2019	17:21
N-Nitroso-di-n-propylamine	< 10.0	ug/L	4/11/2019	17:21
N-Nitrosodiphenylamine	< 10.0	ug/L	4/11/2019	17:21
Pentachlorophenol	< 20.0	ug/L	4/11/2019	17:21
Phenanthrene	< 10.0	ug/L	4/11/2019	17:21
Phenol	< 10.0	ug/L	4/11/2019	17:21
Pyrene	< 10.0	ug/L	4/11/2019	17:21

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	83.7	47.9 - 130		4/11/2019 17:21
2-Fluorobiphenyl	55.2	30.8 - 101		4/11/2019 17:21
2-Fluorophenol	41.2	10 - 113		4/11/2019 17:21
Nitrobenzene-d5	69.0	48.6 - 102		4/11/2019 17:21
Phenol-d5	30.0	10 - 111		4/11/2019 17:21
Terphenyl-d14	92.0	57.2 - 111		4/11/2019 17:21

Method Reference(s): EPA 8270D

EPA 3510C

Preparation Date: 4/5/2019

Data File: B36039.D

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-101

Lab Sample ID: 191302-07

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		4/11/2019 20:40
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		4/11/2019 20:40
1,1,2-Trichloroethane	< 2.00	ug/L		4/11/2019 20:40
1,1-Dichloroethane	< 2.00	ug/L		4/11/2019 20:40
1,1-Dichloroethene	< 2.00	ug/L		4/11/2019 20:40
1,2,3-Trichlorobenzene	< 5.00	ug/L		4/11/2019 20:40
1,2,4-Trichlorobenzene	< 5.00	ug/L		4/11/2019 20:40
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		4/11/2019 20:40
1,2-Dibromoethane	< 2.00	ug/L		4/11/2019 20:40
1,2-Dichlorobenzene	< 2.00	ug/L		4/11/2019 20:40
1,2-Dichloroethane	< 2.00	ug/L		4/11/2019 20:40
1,2-Dichloropropane	< 2.00	ug/L		4/11/2019 20:40
1,3-Dichlorobenzene	< 2.00	ug/L		4/11/2019 20:40
1,4-Dichlorobenzene	< 2.00	ug/L		4/11/2019 20:40
1,4-Dioxane	< 20.0	ug/L		4/11/2019 20:40
2-Butanone	< 10.0	ug/L		4/11/2019 20:40
2-Hexanone	< 5.00	ug/L		4/11/2019 20:40
4-Methyl-2-pentanone	< 5.00	ug/L		4/11/2019 20:40
Acetone	< 10.0	ug/L		4/11/2019 20:40
Benzene	< 1.00	ug/L		4/11/2019 20:40
Bromochloromethane	< 5.00	ug/L		4/11/2019 20:40
Bromodichloromethane	< 2.00	ug/L		4/11/2019 20:40
Bromoform	< 5.00	ug/L		4/11/2019 20:40
Bromomethane	< 2.00	ug/L		4/11/2019 20:40
Carbon disulfide	< 2.00	ug/L		4/11/2019 20:40
Carbon Tetrachloride	< 2.00	ug/L		4/11/2019 20:40
Chlorobenzene	< 2.00	ug/L		4/11/2019 20:40

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-101

Lab Sample ID: 191302-07

Date Sampled: 4/2/2019

Matrix: Groundwater

Date Received: 4/2/2019

Chloroethane	< 2.00	ug/L	4/11/2019 20:40
Chloroform	< 2.00	ug/L	4/11/2019 20:40
Chloromethane	< 2.00	ug/L	4/11/2019 20:40
cis-1,2-Dichloroethene	< 2.00	ug/L	4/11/2019 20:40
cis-1,3-Dichloropropene	< 2.00	ug/L	4/11/2019 20:40
Cyclohexane	< 10.0	ug/L	4/11/2019 20:40
Dibromochloromethane	< 2.00	ug/L	4/11/2019 20:40
Dichlorodifluoromethane	< 2.00	ug/L	4/11/2019 20:40
Ethylbenzene	< 2.00	ug/L	4/11/2019 20:40
Freon 113	< 2.00	ug/L	4/11/2019 20:40
Isopropylbenzene	< 2.00	ug/L	4/11/2019 20:40
m,p-Xylene	< 2.00	ug/L	4/11/2019 20:40
Methyl acetate	< 2.00	ug/L	4/11/2019 20:40
Methyl tert-butyl Ether	< 2.00	ug/L	4/11/2019 20:40
Methylcyclohexane	< 2.00	ug/L	4/11/2019 20:40
Methylene chloride	< 5.00	ug/L	4/11/2019 20:40
o-Xylene	< 2.00	ug/L	4/11/2019 20:40
Styrene	< 5.00	ug/L	4/11/2019 20:40
Tetrachloroethene	< 2.00	ug/L	4/11/2019 20:40
Toluene	< 2.00	ug/L	4/11/2019 20:40
trans-1,2-Dichloroethene	< 2.00	ug/L	4/11/2019 20:40
trans-1,3-Dichloropropene	< 2.00	ug/L	4/11/2019 20:40
Trichloroethene	< 2.00	ug/L	4/11/2019 20:40
Trichlorofluoromethane	< 2.00	ug/L	4/11/2019 20:40
Vinyl chloride	< 2.00	ug/L	4/11/2019 20:40

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Report Prepared Thursday, April 18, 2019



**Lab Project ID:** 191302

**Client:** **Bergmann Associates**

**Project Reference:** VOA 1st Qtr 2019 Backlot

**Sample Identifier:** MW-101

**Lab Sample ID:** 191302-07

**Date Sampled:** 4/2/2019

**Matrix:** Groundwater

**Date Received:** 4/2/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	<b>148</b>	71.4 - 133	*	4/11/2019	20:40
4-Bromofluorobenzene	<b>76.8</b>	61.7 - 126		4/11/2019	20:40
Pentafluorobenzene	<b>82.4</b>	87.4 - 109	*	4/11/2019	20:40
Toluene-D8	<b>84.8</b>	82.3 - 112		4/11/2019	20:40

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:** x59922.D

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*Report Prepared Thursday, April 18, 2019*



**Lab Project ID:** 191302

**Client:** **Bergmann Associates**

**Project Reference:** VOA 1st Qtr 2019 Backlot

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**Sample Identifier:** MW-102

**Lab Sample ID:** 191302-08

**Date Sampled:** 4/2/2019

**Matrix:** Groundwater

**Date Received:** 4/2/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		4/10/2019 09:29

**Method Reference(s):** EPA 7470A

**Preparation Date:** 4/9/2019

**Data File:** Hg190410A

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*Report Prepared Thursday, April 18, 2019*



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-102

Lab Sample ID: 191302-08

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	< 0.100	mg/L		4/17/2019 09:49
Antimony	< 0.0600	mg/L		4/17/2019 09:49
Arsenic	< 0.0100	mg/L		4/17/2019 09:49
Barium	<b>0.613</b>	mg/L		4/17/2019 09:49
Beryllium	< 0.00500	mg/L		4/16/2019 18:56
Cadmium	< 0.00500	mg/L		4/17/2019 09:49
Calcium	<b>518</b>	mg/L		4/17/2019 10:02
Chromium	< 0.0100	mg/L		4/17/2019 09:49
Cobalt	< 0.0500	mg/L		4/17/2019 09:49
Copper	< 0.0400	mg/L		4/17/2019 09:49
Iron	<b>9.72</b>	mg/L		4/17/2019 09:49
Lead	< 0.0100	mg/L		4/17/2019 09:49
Magnesium	<b>165</b>	mg/L		4/17/2019 09:49
Manganese	<b>0.770</b>	mg/L		4/17/2019 09:49
Nickel	< 0.0400	mg/L		4/17/2019 09:49
Potassium	<b>48.7</b>	mg/L		4/17/2019 09:49
Selenium	< 0.0200	mg/L		4/17/2019 09:49
Silver	< 0.0100	mg/L		4/17/2019 09:49
Sodium	<b>1590</b>	mg/L		4/17/2019 10:02
Thallium	< 0.0250	mg/L		4/17/2019 09:49
Vanadium	< 0.0250	mg/L		4/17/2019 09:49
Zinc	<b>0.0575</b>	mg/L	J	4/17/2019 09:49

Method Reference(s): EPA 6010C  
EPA 3005A  
Preparation Date: 4/3/2019  
Data File: 190417A

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-102

Lab Sample ID: 191302-08

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		4/11/2019 17:51
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		4/11/2019 17:51
1,2,4-Trichlorobenzene	< 10.0	ug/L		4/11/2019 17:51
1,2-Dichlorobenzene	< 10.0	ug/L		4/11/2019 17:51
1,3-Dichlorobenzene	< 10.0	ug/L		4/11/2019 17:51
1,4-Dichlorobenzene	< 10.0	ug/L		4/11/2019 17:51
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		4/11/2019 17:51
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		4/11/2019 17:51
2,4,5-Trichlorophenol	< 20.0	ug/L		4/11/2019 17:51
2,4,6-Trichlorophenol	< 10.0	ug/L		4/11/2019 17:51
2,4-Dichlorophenol	< 10.0	ug/L		4/11/2019 17:51
2,4-Dimethylphenol	< 20.0	ug/L		4/11/2019 17:51
2,4-Dinitrophenol	< 20.0	ug/L		4/11/2019 17:51
2,4-Dinitrotoluene	< 10.0	ug/L		4/11/2019 17:51
2,6-Dinitrotoluene	< 10.0	ug/L		4/11/2019 17:51
2-Chloronaphthalene	< 10.0	ug/L		4/11/2019 17:51
2-Chlorophenol	< 10.0	ug/L		4/11/2019 17:51
2-Methylnapthalene	< 10.0	ug/L		4/11/2019 17:51
2-Methylphenol	< 10.0	ug/L		4/11/2019 17:51
2-Nitroaniline	< 20.0	ug/L		4/11/2019 17:51
2-Nitrophenol	< 10.0	ug/L		4/11/2019 17:51
3&4-Methylphenol	< 10.0	ug/L		4/11/2019 17:51
3,3'-Dichlorobenzidine	< 10.0	ug/L		4/11/2019 17:51
3-Nitroaniline	< 20.0	ug/L		4/11/2019 17:51
4,6-Dinitro-2-methylphenol	< 20.0	ug/L		4/11/2019 17:51
4-Bromophenyl phenyl ether	< 10.0	ug/L		4/11/2019 17:51
4-Chloro-3-methylphenol	< 10.0	ug/L		4/11/2019 17:51

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	MW-102			
Lab Sample ID:	191302-08		Date Sampled:	4/2/2019
Matrix:	Groundwater		Date Received:	4/2/2019
4-Chloroaniline	< 10.0	ug/L	4/11/2019	17:51
4-Chlorophenyl phenyl ether	< 10.0	ug/L	4/11/2019	17:51
4-Nitroaniline	< 20.0	ug/L	4/11/2019	17:51
4-Nitrophenol	< 20.0	ug/L	4/11/2019	17:51
Acenaphthene	< 10.0	ug/L	4/11/2019	17:51
Acenaphthylene	< 10.0	ug/L	4/11/2019	17:51
Acetophenone	< 10.0	ug/L	4/11/2019	17:51
Anthracene	< 10.0	ug/L	4/11/2019	17:51
Atrazine	< 10.0	ug/L	4/11/2019	17:51
Benzaldehyde	< 10.0	ug/L	4/11/2019	17:51
Benzo (a) anthracene	< 10.0	ug/L	4/11/2019	17:51
Benzo (a) pyrene	< 10.0	ug/L	4/11/2019	17:51
Benzo (b) fluoranthene	< 10.0	ug/L	4/11/2019	17:51
Benzo (g,h,i) perylene	< 10.0	ug/L	4/11/2019	17:51
Benzo (k) fluoranthene	< 10.0	ug/L	4/11/2019	17:51
Bis (2-chloroethoxy) methane	< 10.0	ug/L	4/11/2019	17:51
Bis (2-chloroethyl) ether	< 10.0	ug/L	4/11/2019	17:51
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	4/11/2019	17:51
Butylbenzylphthalate	< 10.0	ug/L	4/11/2019	17:51
Caprolactam	< 10.0	ug/L	4/11/2019	17:51
Carbazole	< 10.0	ug/L	4/11/2019	17:51
Chrysene	< 10.0	ug/L	4/11/2019	17:51
Dibenz (a,h) anthracene	< 10.0	ug/L	4/11/2019	17:51
Dibenzofuran	< 10.0	ug/L	4/11/2019	17:51
Diethyl phthalate	< 10.0	ug/L	4/11/2019	17:51
Dimethyl phthalate	< 20.0	ug/L	4/11/2019	17:51
Di-n-butyl phthalate	< 10.0	ug/L	4/11/2019	17:51
Di-n-octylphthalate	< 10.0	ug/L	4/11/2019	17:51
Fluoranthene	< 10.0	ug/L	4/11/2019	17:51
Fluorene	< 10.0	ug/L	4/11/2019	17:51

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	MW-102			
Lab Sample ID:	191302-08		Date Sampled:	4/2/2019
Matrix:	Groundwater		Date Received:	4/2/2019
Hexachlorobenzene	< 10.0	ug/L		4/11/2019 17:51
Hexachlorobutadiene	< 10.0	ug/L		4/11/2019 17:51
Hexachlorocyclopentadiene	< 10.0	ug/L		4/11/2019 17:51
Hexachloroethane	< 10.0	ug/L		4/11/2019 17:51
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L		4/11/2019 17:51
Isophorone	< 10.0	ug/L		4/11/2019 17:51
Naphthalene	< 10.0	ug/L		4/11/2019 17:51
Nitrobenzene	< 10.0	ug/L		4/11/2019 17:51
N-Nitroso-di-n-propylamine	< 10.0	ug/L		4/11/2019 17:51
N-Nitrosodiphenylamine	< 10.0	ug/L		4/11/2019 17:51
Pentachlorophenol	< 20.0	ug/L		4/11/2019 17:51
Phenanthrene	< 10.0	ug/L		4/11/2019 17:51
Phenol	< 10.0	ug/L		4/11/2019 17:51
Pyrene	< 10.0	ug/L		4/11/2019 17:51
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
2,4,6-Tribromophenol	91.1	47.9 - 130		4/11/2019 17:51
2-Fluorobiphenyl	66.9	30.8 - 101		4/11/2019 17:51
2-Fluorophenol	48.2	10 - 113		4/11/2019 17:51
Nitrobenzene-d5	82.3	48.6 - 102		4/11/2019 17:51
Phenol-d5	34.2	10 - 111		4/11/2019 17:51
Terphenyl-d14	95.6	57.2 - 111		4/11/2019 17:51

Method Reference(s): EPA 8270D  
EPA 3510C  
Preparation Date: 4/5/2019  
Data File: B36040.D

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-102

Lab Sample ID: 191302-08

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		4/11/2019 21:02
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		4/11/2019 21:02
1,1,2-Trichloroethane	< 2.00	ug/L		4/11/2019 21:02
1,1-Dichloroethane	< 2.00	ug/L		4/11/2019 21:02
1,1-Dichloroethene	< 2.00	ug/L		4/11/2019 21:02
1,2,3-Trichlorobenzene	< 5.00	ug/L		4/11/2019 21:02
1,2,4-Trichlorobenzene	< 5.00	ug/L		4/11/2019 21:02
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		4/11/2019 21:02
1,2-Dibromoethane	< 2.00	ug/L		4/11/2019 21:02
1,2-Dichlorobenzene	< 2.00	ug/L		4/11/2019 21:02
1,2-Dichloroethane	< 2.00	ug/L		4/11/2019 21:02
1,2-Dichloropropane	< 2.00	ug/L		4/11/2019 21:02
1,3-Dichlorobenzene	< 2.00	ug/L		4/11/2019 21:02
1,4-Dichlorobenzene	< 2.00	ug/L		4/11/2019 21:02
1,4-Dioxane	< 20.0	ug/L		4/11/2019 21:02
2-Butanone	< 10.0	ug/L		4/11/2019 21:02
2-Hexanone	< 5.00	ug/L		4/11/2019 21:02
4-Methyl-2-pentanone	< 5.00	ug/L		4/11/2019 21:02
Acetone	< 10.0	ug/L		4/11/2019 21:02
Benzene	< 1.00	ug/L		4/11/2019 21:02
Bromochloromethane	< 5.00	ug/L		4/11/2019 21:02
Bromodichloromethane	< 2.00	ug/L		4/11/2019 21:02
Bromoform	< 5.00	ug/L		4/11/2019 21:02
Bromomethane	< 2.00	ug/L		4/11/2019 21:02
Carbon disulfide	< 2.00	ug/L		4/11/2019 21:02
Carbon Tetrachloride	< 2.00	ug/L		4/11/2019 21:02
Chlorobenzene	< 2.00	ug/L		4/11/2019 21:02

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	MW-102			
Lab Sample ID:	191302-08		Date Sampled:	4/2/2019
Matrix:	Groundwater		Date Received:	4/2/2019
Chloroethane	< 2.00	ug/L	4/11/2019	21:02
Chloroform	< 2.00	ug/L	4/11/2019	21:02
Chloromethane	< 2.00	ug/L	4/11/2019	21:02
cis-1,2-Dichloroethene	< 2.00	ug/L	4/11/2019	21:02
cis-1,3-Dichloropropene	< 2.00	ug/L	4/11/2019	21:02
Cyclohexane	< 10.0	ug/L	4/11/2019	21:02
Dibromochloromethane	< 2.00	ug/L	4/11/2019	21:02
Dichlorodifluoromethane	< 2.00	ug/L	4/11/2019	21:02
Ethylbenzene	< 2.00	ug/L	4/11/2019	21:02
Freon 113	< 2.00	ug/L	4/11/2019	21:02
Isopropylbenzene	< 2.00	ug/L	4/11/2019	21:02
m,p-Xylene	< 2.00	ug/L	4/11/2019	21:02
Methyl acetate	< 2.00	ug/L	4/11/2019	21:02
Methyl tert-butyl Ether	< 2.00	ug/L	4/11/2019	21:02
Methylcyclohexane	< 2.00	ug/L	4/11/2019	21:02
Methylene chloride	< 5.00	ug/L	4/11/2019	21:02
o-Xylene	< 2.00	ug/L	4/11/2019	21:02
Styrene	< 5.00	ug/L	4/11/2019	21:02
Tetrachloroethene	< 2.00	ug/L	4/11/2019	21:02
Toluene	< 2.00	ug/L	4/11/2019	21:02
trans-1,2-Dichloroethene	< 2.00	ug/L	4/11/2019	21:02
trans-1,3-Dichloropropene	< 2.00	ug/L	4/11/2019	21:02
Trichloroethene	< 2.00	ug/L	4/11/2019	21:02
Trichlorofluoromethane	< 2.00	ug/L	4/11/2019	21:02
Vinyl chloride	< 2.00	ug/L	4/11/2019	21:02

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MW-102

Lab Sample ID: 191302-08

Date Sampled: 4/2/2019

Matrix: Groundwater

Date Received: 4/2/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	<b>146</b>	71.4 - 133	*	4/11/2019	21:02
4-Bromofluorobenzene	<b>86.2</b>	61.7 - 126		4/11/2019	21:02
Pentafluorobenzene	<b>84.1</b>	87.4 - 109	*	4/11/2019	21:02
Toluene-D8	<b>95.0</b>	82.3 - 112		4/11/2019	21:02

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x59923.D

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Report Prepared Thursday, April 18, 2019



**Lab Project ID:** 191302

**Client:** **Bergmann Associates**

**Project Reference:** VOA 1st Qtr 2019 Backlot

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**Sample Identifier:** MWR-102

**Lab Sample ID:** 191302-09

**Date Sampled:** 4/2/2019

**Matrix:** Groundwater

**Date Received:** 4/2/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		4/10/2019 09:32

**Method Reference(s):** EPA 7470A

**Preparation Date:** 4/9/2019

**Data File:** Hg190410A

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*Report Prepared Thursday, April 18, 2019*



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MWR-102

Lab Sample ID: 191302-09

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	< 0.100	mg/L		4/17/2019 09:53
Antimony	< 0.0600	mg/L		4/17/2019 09:53
Arsenic	< 0.0100	mg/L		4/17/2019 09:53
Barium	<b>0.0768</b>	mg/L	J	4/17/2019 09:53
Beryllium	< 0.00500	mg/L		4/16/2019 19:01
Cadmium	< 0.00500	mg/L		4/17/2019 09:53
Calcium	<b>108</b>	mg/L		4/17/2019 09:53
Chromium	< 0.0100	mg/L		4/17/2019 09:53
Cobalt	< 0.0500	mg/L		4/17/2019 09:53
Copper	< 0.0400	mg/L		4/17/2019 09:53
Iron	<b>1.21</b>	mg/L		4/17/2019 09:53
Lead	< 0.0100	mg/L		4/17/2019 09:53
Magnesium	<b>71.5</b>	mg/L		4/17/2019 09:53
Manganese	<b>0.131</b>	mg/L		4/17/2019 09:53
Nickel	< 0.0400	mg/L		4/17/2019 09:53
Potassium	<b>12.6</b>	mg/L		4/17/2019 09:53
Selenium	< 0.0200	mg/L		4/17/2019 09:53
Silver	< 0.0100	mg/L		4/17/2019 09:53
Sodium	<b>305</b>	mg/L		4/17/2019 09:53
Thallium	< 0.0250	mg/L		4/17/2019 09:53
Vanadium	< 0.0250	mg/L		4/17/2019 09:53
Zinc	< 0.0600	mg/L		4/17/2019 09:53

Method Reference(s): EPA 6010C  
EPA 3005A  
Preparation Date: 4/3/2019  
Data File: 190417A

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MWR-102

Lab Sample ID: 191302-09

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		4/11/2019 18:21
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		4/11/2019 18:21
1,2,4-Trichlorobenzene	< 10.0	ug/L		4/11/2019 18:21
1,2-Dichlorobenzene	< 10.0	ug/L		4/11/2019 18:21
1,3-Dichlorobenzene	< 10.0	ug/L		4/11/2019 18:21
1,4-Dichlorobenzene	< 10.0	ug/L		4/11/2019 18:21
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		4/11/2019 18:21
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		4/11/2019 18:21
2,4,5-Trichlorophenol	< 20.0	ug/L		4/11/2019 18:21
2,4,6-Trichlorophenol	< 10.0	ug/L		4/11/2019 18:21
2,4-Dichlorophenol	< 10.0	ug/L		4/11/2019 18:21
2,4-Dimethylphenol	< 20.0	ug/L		4/11/2019 18:21
2,4-Dinitrophenol	< 20.0	ug/L		4/11/2019 18:21
2,4-Dinitrotoluene	< 10.0	ug/L		4/11/2019 18:21
2,6-Dinitrotoluene	< 10.0	ug/L		4/11/2019 18:21
2-Chloronaphthalene	< 10.0	ug/L		4/11/2019 18:21
2-Chlorophenol	< 10.0	ug/L		4/11/2019 18:21
2-Methylnapthalene	< 10.0	ug/L		4/11/2019 18:21
2-Methylphenol	< 10.0	ug/L		4/11/2019 18:21
2-Nitroaniline	< 20.0	ug/L		4/11/2019 18:21
2-Nitrophenol	< 10.0	ug/L		4/11/2019 18:21
3&4-Methylphenol	< 10.0	ug/L		4/11/2019 18:21
3,3'-Dichlorobenzidine	< 10.0	ug/L		4/11/2019 18:21
3-Nitroaniline	< 20.0	ug/L		4/11/2019 18:21
4,6-Dinitro-2-methylphenol	< 20.0	ug/L		4/11/2019 18:21
4-Bromophenyl phenyl ether	< 10.0	ug/L		4/11/2019 18:21
4-Chloro-3-methylphenol	< 10.0	ug/L		4/11/2019 18:21

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	MWR-102			
Lab Sample ID:	191302-09		Date Sampled:	4/2/2019
Matrix:	Groundwater		Date Received:	4/2/2019
4-Chloroaniline	< 10.0	ug/L	4/11/2019	18:21
4-Chlorophenyl phenyl ether	< 10.0	ug/L	4/11/2019	18:21
4-Nitroaniline	< 20.0	ug/L	4/11/2019	18:21
4-Nitrophenol	< 20.0	ug/L	4/11/2019	18:21
Acenaphthene	< 10.0	ug/L	4/11/2019	18:21
Acenaphthylene	< 10.0	ug/L	4/11/2019	18:21
Acetophenone	< 10.0	ug/L	4/11/2019	18:21
Anthracene	< 10.0	ug/L	4/11/2019	18:21
Atrazine	< 10.0	ug/L	4/11/2019	18:21
Benzaldehyde	< 10.0	ug/L	4/11/2019	18:21
Benzo (a) anthracene	< 10.0	ug/L	4/11/2019	18:21
Benzo (a) pyrene	< 10.0	ug/L	4/11/2019	18:21
Benzo (b) fluoranthene	< 10.0	ug/L	4/11/2019	18:21
Benzo (g,h,i) perylene	< 10.0	ug/L	4/11/2019	18:21
Benzo (k) fluoranthene	< 10.0	ug/L	4/11/2019	18:21
Bis (2-chloroethoxy) methane	< 10.0	ug/L	4/11/2019	18:21
Bis (2-chloroethyl) ether	< 10.0	ug/L	4/11/2019	18:21
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	4/11/2019	18:21
Butylbenzylphthalate	< 10.0	ug/L	4/11/2019	18:21
Caprolactam	< 10.0	ug/L	4/11/2019	18:21
Carbazole	< 10.0	ug/L	4/11/2019	18:21
Chrysene	< 10.0	ug/L	4/11/2019	18:21
Dibenz (a,h) anthracene	< 10.0	ug/L	4/11/2019	18:21
Dibenzofuran	< 10.0	ug/L	4/11/2019	18:21
Diethyl phthalate	< 10.0	ug/L	4/11/2019	18:21
Dimethyl phthalate	< 20.0	ug/L	4/11/2019	18:21
Di-n-butyl phthalate	< 10.0	ug/L	4/11/2019	18:21
Di-n-octylphthalate	< 10.0	ug/L	4/11/2019	18:21
Fluoranthene	< 10.0	ug/L	4/11/2019	18:21
Fluorene	< 10.0	ug/L	4/11/2019	18:21

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	MWR-102				
Lab Sample ID:	191302-09		Date Sampled:	4/2/2019	
Matrix:	Groundwater		Date Received:	4/2/2019	
Hexachlorobenzene	< 10.0	ug/L		4/11/2019	18:21
Hexachlorobutadiene	< 10.0	ug/L		4/11/2019	18:21
Hexachlorocyclopentadiene	< 10.0	ug/L		4/11/2019	18:21
Hexachloroethane	< 10.0	ug/L		4/11/2019	18:21
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L		4/11/2019	18:21
Isophorone	< 10.0	ug/L		4/11/2019	18:21
Naphthalene	< 10.0	ug/L		4/11/2019	18:21
Nitrobenzene	< 10.0	ug/L		4/11/2019	18:21
N-Nitroso-di-n-propylamine	< 10.0	ug/L		4/11/2019	18:21
N-Nitrosodiphenylamine	< 10.0	ug/L		4/11/2019	18:21
Pentachlorophenol	< 20.0	ug/L		4/11/2019	18:21
Phenanthrene	< 10.0	ug/L		4/11/2019	18:21
Phenol	< 10.0	ug/L		4/11/2019	18:21
Pyrene	< 10.0	ug/L		4/11/2019	18:21
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	41.0	47.9 - 130	*	4/11/2019	18:21
2-Fluorobiphenyl	20.6	30.8 - 101	*	4/11/2019	18:21
2-Fluorophenol	21.5	10 - 113		4/11/2019	18:21
Nitrobenzene-d5	34.9	48.6 - 102	*	4/11/2019	18:21
Phenol-d5	15.5	10 - 111		4/11/2019	18:21
Terphenyl-d14	43.9	57.2 - 111	*	4/11/2019	18:21

*Surrogate outliers likely due to 2x Internal Standard added*

Method Reference(s): EPA 8270D

EPA 3510C

Preparation Date: 4/5/2019

Data File: B36041.D

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MWR-102

Lab Sample ID: 191302-09

Matrix: Groundwater

Date Sampled: 4/2/2019

Date Received: 4/2/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		4/11/2019 21:25
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		4/11/2019 21:25
1,1,2-Trichloroethane	< 2.00	ug/L		4/11/2019 21:25
1,1-Dichloroethane	< 2.00	ug/L		4/11/2019 21:25
1,1-Dichloroethene	< 2.00	ug/L		4/11/2019 21:25
1,2,3-Trichlorobenzene	< 5.00	ug/L		4/11/2019 21:25
1,2,4-Trichlorobenzene	< 5.00	ug/L		4/11/2019 21:25
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		4/11/2019 21:25
1,2-Dibromoethane	< 2.00	ug/L		4/11/2019 21:25
1,2-Dichlorobenzene	< 2.00	ug/L		4/11/2019 21:25
1,2-Dichloroethane	< 2.00	ug/L		4/11/2019 21:25
1,2-Dichloropropane	< 2.00	ug/L		4/11/2019 21:25
1,3-Dichlorobenzene	< 2.00	ug/L		4/11/2019 21:25
1,4-Dichlorobenzene	< 2.00	ug/L		4/11/2019 21:25
1,4-Dioxane	< 20.0	ug/L		4/11/2019 21:25
2-Butanone	< 10.0	ug/L		4/11/2019 21:25
2-Hexanone	< 5.00	ug/L		4/11/2019 21:25
4-Methyl-2-pentanone	< 5.00	ug/L		4/11/2019 21:25
Acetone	< 10.0	ug/L		4/11/2019 21:25
Benzene	< 1.00	ug/L		4/11/2019 21:25
Bromochloromethane	< 5.00	ug/L		4/11/2019 21:25
Bromodichloromethane	< 2.00	ug/L		4/11/2019 21:25
Bromoform	< 5.00	ug/L		4/11/2019 21:25
Bromomethane	< 2.00	ug/L		4/11/2019 21:25
Carbon disulfide	< 2.00	ug/L		4/11/2019 21:25
Carbon Tetrachloride	< 2.00	ug/L		4/11/2019 21:25
Chlorobenzene	< 2.00	ug/L		4/11/2019 21:25

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	MWR-102			
Lab Sample ID:	191302-09		Date Sampled:	4/2/2019
Matrix:	Groundwater		Date Received:	4/2/2019
Chloroethane	< 2.00	ug/L		4/11/2019 21:25
Chloroform	< 2.00	ug/L		4/11/2019 21:25
Chloromethane	< 2.00	ug/L		4/11/2019 21:25
cis-1,2-Dichloroethene	1.53	ug/L	J	4/11/2019 21:25
cis-1,3-Dichloropropene	< 2.00	ug/L		4/11/2019 21:25
Cyclohexane	< 10.0	ug/L		4/11/2019 21:25
Dibromochloromethane	< 2.00	ug/L		4/11/2019 21:25
Dichlorodifluoromethane	< 2.00	ug/L		4/11/2019 21:25
Ethylbenzene	< 2.00	ug/L		4/11/2019 21:25
Freon 113	< 2.00	ug/L		4/11/2019 21:25
Isopropylbenzene	< 2.00	ug/L		4/11/2019 21:25
m,p-Xylene	< 2.00	ug/L		4/11/2019 21:25
Methyl acetate	< 2.00	ug/L		4/11/2019 21:25
Methyl tert-butyl Ether	20.7	ug/L		4/11/2019 21:25
Methylcyclohexane	< 2.00	ug/L		4/11/2019 21:25
Methylene chloride	< 5.00	ug/L		4/11/2019 21:25
o-Xylene	< 2.00	ug/L		4/11/2019 21:25
Styrene	< 5.00	ug/L		4/11/2019 21:25
Tetrachloroethene	< 2.00	ug/L		4/11/2019 21:25
Toluene	< 2.00	ug/L		4/11/2019 21:25
trans-1,2-Dichloroethene	< 2.00	ug/L		4/11/2019 21:25
trans-1,3-Dichloropropene	< 2.00	ug/L		4/11/2019 21:25
Trichloroethene	< 2.00	ug/L		4/11/2019 21:25
Trichlorofluoromethane	< 2.00	ug/L		4/11/2019 21:25
Vinyl chloride	< 2.00	ug/L		4/11/2019 21:25

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: MWR-102

Lab Sample ID: 191302-09

Date Sampled: 4/2/2019

Matrix: Groundwater

Date Received: 4/2/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	<b>153</b>	71.4 - 133	*	4/11/2019	21:25
4-Bromofluorobenzene	<b>78.8</b>	61.7 - 126		4/11/2019	21:25
Pentafluorobenzene	<b>91.2</b>	87.4 - 109		4/11/2019	21:25
Toluene-D8	<b>87.0</b>	82.3 - 112		4/11/2019	21:25

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x59924.D

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: Trip Blank T900

Lab Sample ID: 191302-10

Date Sampled: 4/2/2019

Matrix: Water

Date Received: 4/2/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		4/11/2019 18:23
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		4/11/2019 18:23
1,1,2-Trichloroethane	< 2.00	ug/L		4/11/2019 18:23
1,1-Dichloroethane	< 2.00	ug/L		4/11/2019 18:23
1,1-Dichloroethene	< 2.00	ug/L		4/11/2019 18:23
1,2,3-Trichlorobenzene	< 5.00	ug/L		4/11/2019 18:23
1,2,4-Trichlorobenzene	< 5.00	ug/L		4/11/2019 18:23
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		4/11/2019 18:23
1,2-Dibromoethane	< 2.00	ug/L		4/11/2019 18:23
1,2-Dichlorobenzene	< 2.00	ug/L		4/11/2019 18:23
1,2-Dichloroethane	< 2.00	ug/L		4/11/2019 18:23
1,2-Dichloropropane	< 2.00	ug/L		4/11/2019 18:23
1,3-Dichlorobenzene	< 2.00	ug/L		4/11/2019 18:23
1,4-Dichlorobenzene	< 2.00	ug/L		4/11/2019 18:23
1,4-Dioxane	< 20.0	ug/L		4/11/2019 18:23
2-Butanone	< 10.0	ug/L		4/11/2019 18:23
2-Hexanone	< 5.00	ug/L		4/11/2019 18:23
4-Methyl-2-pentanone	< 5.00	ug/L		4/11/2019 18:23
Acetone	< 10.0	ug/L		4/11/2019 18:23
Benzene	< 1.00	ug/L		4/11/2019 18:23
Bromochloromethane	< 5.00	ug/L		4/11/2019 18:23
Bromodichloromethane	< 2.00	ug/L		4/11/2019 18:23
Bromoform	< 5.00	ug/L		4/11/2019 18:23
Bromomethane	< 2.00	ug/L		4/11/2019 18:23
Carbon disulfide	< 2.00	ug/L		4/11/2019 18:23
Carbon Tetrachloride	< 2.00	ug/L		4/11/2019 18:23
Chlorobenzene	< 2.00	ug/L		4/11/2019 18:23

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier:	Trip Blank T900			Date Sampled:	4/2/2019
Lab Sample ID:	191302-10			Date Received:	4/2/2019
Matrix:	Water				
Chloroethane	< 2.00	ug/L		4/11/2019	18:23
Chloroform	< 2.00	ug/L		4/11/2019	18:23
Chloromethane	< 2.00	ug/L		4/11/2019	18:23
cis-1,2-Dichloroethene	< 2.00	ug/L		4/11/2019	18:23
cis-1,3-Dichloropropene	< 2.00	ug/L		4/11/2019	18:23
Cyclohexane	< 10.0	ug/L		4/11/2019	18:23
Dibromochloromethane	< 2.00	ug/L		4/11/2019	18:23
Dichlorodifluoromethane	< 2.00	ug/L		4/11/2019	18:23
Ethylbenzene	< 2.00	ug/L		4/11/2019	18:23
Freon 113	< 2.00	ug/L		4/11/2019	18:23
Isopropylbenzene	< 2.00	ug/L		4/11/2019	18:23
m,p-Xylene	< 2.00	ug/L		4/11/2019	18:23
Methyl acetate	< 2.00	ug/L		4/11/2019	18:23
Methyl tert-butyl Ether	< 2.00	ug/L		4/11/2019	18:23
Methylcyclohexane	< 2.00	ug/L		4/11/2019	18:23
Methylene chloride	< 5.00	ug/L		4/11/2019	18:23
o-Xylene	< 2.00	ug/L		4/11/2019	18:23
Styrene	< 5.00	ug/L		4/11/2019	18:23
Tetrachloroethene	< 2.00	ug/L		4/11/2019	18:23
Toluene	< 2.00	ug/L		4/11/2019	18:23
trans-1,2-Dichloroethene	< 2.00	ug/L		4/11/2019	18:23
trans-1,3-Dichloropropene	< 2.00	ug/L		4/11/2019	18:23
Trichloroethene	< 2.00	ug/L		4/11/2019	18:23
Trichlorofluoromethane	< 2.00	ug/L		4/11/2019	18:23
Vinyl chloride	< 2.00	ug/L		4/11/2019	18:23

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Report Prepared Thursday, April 18, 2019



Lab Project ID: 191302

Client: **Bergmann Associates**

Project Reference: VOA 1st Qtr 2019 Backlot

Sample Identifier: Trip Blank T900

Lab Sample ID: 191302-10

Date Sampled: 4/2/2019

Matrix: Water

Date Received: 4/2/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	<b>139</b>	71.4 - 133	*	4/11/2019	18:23
4-Bromofluorobenzene	<b>78.7</b>	61.7 - 126		4/11/2019	18:23
Pentafluorobenzene	<b>88.8</b>	87.4 - 109		4/11/2019	18:23
Toluene-D8	<b>87.2</b>	82.3 - 112		4/11/2019	18:23

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x59916.D

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Report Prepared Thursday, April 18, 2019



## Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

*"<" = Analyzed for but not detected at or above the quantitation limit.*

*"E" = Result has been estimated, calibration limit exceeded.*

*"Z" = See case narrative.*

*"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.*

*"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.*

*"B" = Method blank contained trace levels of analyte. Refer to included method blank report.*

*"J" = Result estimated between the quantitation limit and half the quantitation limit.*

*"L" = Laboratory Control Sample recovery outside accepted QC limits.*

*"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.*

*"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.*

*"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

*"(1)" = Indicates data from primary column used for QC calculation.*

*"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.*

*"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.*

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Report Prepared Thursday, April 26, 2018

# GENERAL TERMS AND CONDITIONS

## LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

### Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

### Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

### Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

### Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

### Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

### Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

### Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

### Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

### Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

### Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

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*Report Prepared Thursday, April 26, 2018*

PROJECT REFERENCE  
VOA 15 Qtr 2014  
Backlot

Matrix Codes:	
AQ - Aqueous Liquid	WA - Water
NA - Non-Aqueous Liquid	WG - Groundwater
	DW - Drinking Water
	WW - Wastewater
	SL - Sludge
	SD - Solid
	PT - Paint
	WP - Wipe
	CK - Caulk
	OL - Oil
	AR - Air

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRADES	SAMPLE IDENTIFIER	MCADRES	CONCRETE	REMARKS	PARADIGM LAB SAMPLE NUMBER
4/2/19	1000		X	MW-103	W6	X		
4/2/19	1000		X	MW-103 MS	W6	X		01
4/2/19	1000		X	MW-103 MSD	W6	X		
4/2/19	1000		X	Blind Dup.	W6	X		
4/2/19	1115		X	MW-107	W6	X		02
4/2/19	1215		X	MW-105	W6	X		03
4/2/19	1335		X	MW-106	W6	X		04
4/2/19	1420		X	MW-101	W6	X		05
4/2/19	1440		X	MW-101	W6	X		06
4/2/19	1500		X	MW-102	W6	X		07
4/2/19	1500		X		W6	X		08

Turnaround Time	Report Supplements	
Availability contingent upon lab approval; additional fees may apply.		
Standard 5 day	<input type="checkbox"/>	None Required <input type="checkbox"/>
10 day	<input checked="" type="checkbox"/>	Batch QC <input type="checkbox"/>
Rush 3 day	<input type="checkbox"/>	Category A <input type="checkbox"/>
Rush 2 day	<input type="checkbox"/>	Category B <input checked="" type="checkbox"/>
Rush 1 day	<input type="checkbox"/>	
Date Needed _____	Other <input type="checkbox"/>	Other EDD <input type="checkbox"/>
please indicate date needed: _____	please indicate package needed: _____	please indicate EDD needed: _____

**Total Cost:**

P.I.F.

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions.

# PARADIGM

PROJECT REFERENCE		DATE:	PRINTED:
V04 1ST Qtr. 2019 Bmek104			
<b>Matrix Codes:</b>			
AQ - Aqueous Liquid	WA - Water	DW - Drinking Water	SO - Soil
NA - Non-Aqueous Liquid	WG - Groundwater	WW - Wastewater	SL - Sludge
		PT - Paint	SD - Solid
		WP - Wipe	CK - Caulk
		OL - Oil	AR - Air

[illegible]

Turnaround Time	Report Supplements	
Availability contingent upon lab approval; additional fees may apply.		
Standard 5 day	<input type="checkbox"/>	None Required <input type="checkbox"/>
10 day	<input checked="" type="checkbox"/>	Batch QC <input type="checkbox"/>
Rush 3 day	<input type="checkbox"/>	Category A <input type="checkbox"/>
Rush 2 day	<input type="checkbox"/>	Category B <input checked="" type="checkbox"/>
Rush 1 day	<input type="checkbox"/>	Other EDD <input type="checkbox"/>
Date Needed _____	Other _____ please indicate package needed:	Other EDD _____ please indicate EDD needed :

Sampled By	Date/Time	Total Cost:
Stephen Diller	4/2/19 1530	
Relinquished By	Date/Time	
Don	4/2/19 1530	
Received By	Date/Time	P.I.F.
Malik	4/2/19 1545	
Received @ Lab By	Date/Time	

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions

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## Chain of Custody Supplement

Client: BergmannCompleted by: Molly VailLab Project ID: 191302Date: 4/2/19

### Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Preservation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Sufficient Sample Quantity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	<u>No bottle cert for metals. Not sampled in certified bottles</u>		



**Lab Project ID:** 192983

**Client:** **Bergmann Associates**

**Project Reference:** VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

---

**Sample Identifier:** MW-101

**Lab Sample ID:** 192983-01

**Date Sampled:** 6/27/2019

**Matrix:** Groundwater

**Date Received:** 6/27/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		7/9/2019 09:59

**Method Reference(s):** EPA 7470A

**Preparation Date:** 7/8/2019

**Data File:** Hg190709A

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*Report Prepared Monday, July 15, 2019*



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MW-101

Lab Sample ID: 192983-01

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	0.0836	mg/L	J	7/1/2019 14:33
Antimony	< 0.0600	mg/L		7/1/2019 14:33
Arsenic	< 0.0100	mg/L		7/1/2019 14:33
Barium	0.135	mg/L		7/1/2019 14:33
Beryllium	< 0.00500	mg/L		7/1/2019 14:33
Cadmium	< 0.00500	mg/L		7/1/2019 14:33
Calcium	111	mg/L		7/1/2019 14:33
Chromium	0.0116	mg/L		7/1/2019 14:33
Cobalt	< 0.0500	mg/L		7/1/2019 14:33
Copper	< 0.0400	mg/L		7/1/2019 14:33
Iron	9.32	mg/L		7/1/2019 14:33
Lead	< 0.0100	mg/L		7/1/2019 14:33
Magnesium	28.3	mg/L		7/1/2019 14:33
Manganese	0.587	mg/L		7/1/2019 14:33
Nickel	< 0.0400	mg/L		7/1/2019 14:33
Potassium	8.28	mg/L		7/1/2019 14:33
Selenium	< 0.0200	mg/L		7/8/2019 15:44
Silver	< 0.0100	mg/L		7/1/2019 14:33
Sodium	132	mg/L		7/1/2019 14:33
Thallium	< 0.0250	mg/L		7/1/2019 14:33
Vanadium	< 0.0250	mg/L		7/1/2019 14:33
Zinc	< 0.0600	mg/L		7/1/2019 14:33

Method Reference(s): EPA 6010C  
EPA 3005A  
Preparation Date: 6/28/2019  
Data File: 19070C

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MW-101

Lab Sample ID: 192983-01

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		7/2/2019 20:24
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		7/2/2019 20:24
1,2,4-Trichlorobenzene	< 10.0	ug/L		7/2/2019 20:24
1,2-Dichlorobenzene	< 10.0	ug/L		7/2/2019 20:24
1,3-Dichlorobenzene	< 10.0	ug/L		7/2/2019 20:24
1,4-Dichlorobenzene	< 10.0	ug/L		7/2/2019 20:24
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		7/2/2019 20:24
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		7/2/2019 20:24
2,4,5-Trichlorophenol	< 20.0	ug/L		7/2/2019 20:24
2,4,6-Trichlorophenol	< 10.0	ug/L		7/2/2019 20:24
2,4-Dichlorophenol	< 10.0	ug/L		7/2/2019 20:24
2,4-Dimethylphenol	< 20.0	ug/L		7/2/2019 20:24
2,4-Dinitrophenol	< 20.0	ug/L		7/2/2019 20:24
2,4-Dinitrotoluene	< 10.0	ug/L		7/2/2019 20:24
2,6-Dinitrotoluene	< 10.0	ug/L		7/2/2019 20:24
2-Chloronaphthalene	< 10.0	ug/L		7/2/2019 20:24
2-Chlorophenol	< 10.0	ug/L		7/2/2019 20:24
2-Methylnapthalene	< 10.0	ug/L		7/2/2019 20:24
2-Methylphenol	< 10.0	ug/L		7/2/2019 20:24
2-Nitroaniline	< 20.0	ug/L		7/2/2019 20:24
2-Nitrophenol	< 10.0	ug/L		7/2/2019 20:24
3&4-Methylphenol	< 10.0	ug/L		7/2/2019 20:24
3,3'-Dichlorobenzidine	< 10.0	ug/L		7/2/2019 20:24
3-Nitroaniline	< 20.0	ug/L		7/2/2019 20:24
4,6-Dinitro-2-methylphenol	< 20.0	ug/L		7/2/2019 20:24
4-Bromophenyl phenyl ether	< 10.0	ug/L		7/2/2019 20:24
4-Chloro-3-methylphenol	< 10.0	ug/L		7/2/2019 20:24

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MW-101				
Lab Sample ID:	192983-01			Date Sampled:	6/27/2019
Matrix:	Groundwater			Date Received:	6/27/2019
4-Chloroaniline	< 10.0	ug/L		7/2/2019	20:24
4-Chlorophenyl phenyl ether	< 10.0	ug/L		7/2/2019	20:24
4-Nitroaniline	< 20.0	ug/L		7/2/2019	20:24
4-Nitrophenol	< 20.0	ug/L		7/2/2019	20:24
Acenaphthene	< 10.0	ug/L		7/2/2019	20:24
Acenaphthylene	< 10.0	ug/L		7/2/2019	20:24
Acetophenone	< 10.0	ug/L		7/2/2019	20:24
Anthracene	< 10.0	ug/L		7/2/2019	20:24
Atrazine	< 10.0	ug/L		7/2/2019	20:24
Benzaldehyde	< 10.0	ug/L		7/2/2019	20:24
Benzo (a) anthracene	< 10.0	ug/L		7/2/2019	20:24
Benzo (a) pyrene	< 10.0	ug/L		7/2/2019	20:24
Benzo (b) fluoranthene	< 10.0	ug/L		7/2/2019	20:24
Benzo (g,h,i) perylene	< 10.0	ug/L		7/2/2019	20:24
Benzo (k) fluoranthene	< 10.0	ug/L		7/2/2019	20:24
Bis (2-chloroethoxy) methane	< 10.0	ug/L		7/2/2019	20:24
Bis (2-chloroethyl) ether	< 10.0	ug/L		7/2/2019	20:24
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L		7/2/2019	20:24
Butylbenzylphthalate	< 10.0	ug/L		7/2/2019	20:24
Caprolactam	< 10.0	ug/L		7/2/2019	20:24
Carbazole	< 10.0	ug/L		7/2/2019	20:24
Chrysene	< 10.0	ug/L		7/2/2019	20:24
Dibenz (a,h) anthracene	< 10.0	ug/L		7/2/2019	20:24
Dibenzofuran	< 10.0	ug/L		7/2/2019	20:24
Diethyl phthalate	< 10.0	ug/L		7/2/2019	20:24
Dimethyl phthalate	< 20.0	ug/L		7/2/2019	20:24
Di-n-butyl phthalate	< 10.0	ug/L		7/2/2019	20:24
Di-n-octylphthalate	< 10.0	ug/L		7/2/2019	20:24
Fluoranthene	< 10.0	ug/L		7/2/2019	20:24
Fluorene	< 10.0	ug/L		7/2/2019	20:24

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MW-101				
Lab Sample ID:	192983-01			Date Sampled:	6/27/2019
Matrix:	Groundwater			Date Received:	6/27/2019
Hexachlorobenzene	< 10.0	ug/L		7/2/2019	20:24
Hexachlorobutadiene	< 10.0	ug/L		7/2/2019	20:24
Hexachlorocyclopentadiene	< 10.0	ug/L		7/2/2019	20:24
Hexachloroethane	< 10.0	ug/L		7/2/2019	20:24
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L		7/2/2019	20:24
Isophorone	< 10.0	ug/L		7/2/2019	20:24
Naphthalene	< 10.0	ug/L		7/2/2019	20:24
Nitrobenzene	< 10.0	ug/L		7/2/2019	20:24
N-Nitroso-di-n-propylamine	< 10.0	ug/L		7/2/2019	20:24
N-Nitrosodiphenylamine	< 10.0	ug/L		7/2/2019	20:24
Pentachlorophenol	< 20.0	ug/L		7/2/2019	20:24
Phenanthrene	< 10.0	ug/L		7/2/2019	20:24
Phenol	< 10.0	ug/L		7/2/2019	20:24
Pyrene	< 10.0	ug/L		7/2/2019	20:24
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>69.6</b>	54.2 - 126		7/2/2019	20:24
2-Fluorobiphenyl	<b>40.6</b>	37.6 - 102		7/2/2019	20:24
2-Fluorophenol	<b>43.0</b>	15.1 - 106		7/2/2019	20:24
Nitrobenzene-d5	<b>69.0</b>	53.3 - 103		7/2/2019	20:24
Phenol-d5	<b>27.8</b>	10 - 108		7/2/2019	20:24
Terphenyl-d14	<b>81.8</b>	61.8 - 114		7/2/2019	20:24

Method Reference(s): EPA 8270D  
EPA 3510C  
Preparation Date: 7/1/2019  
Data File: B38347.D

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MW-101

Lab Sample ID: 192983-01

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		7/10/2019 15:45
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		7/10/2019 15:45
1,1,2-Trichloroethane	< 2.00	ug/L		7/10/2019 15:45
1,1-Dichloroethane	< 2.00	ug/L		7/10/2019 15:45
1,1-Dichloroethene	< 2.00	ug/L		7/10/2019 15:45
1,2,3-Trichlorobenzene	< 5.00	ug/L		7/10/2019 15:45
1,2,4-Trichlorobenzene	< 5.00	ug/L		7/10/2019 15:45
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		7/10/2019 15:45
1,2-Dibromoethane	< 2.00	ug/L		7/10/2019 15:45
1,2-Dichlorobenzene	< 2.00	ug/L		7/10/2019 15:45
1,2-Dichloroethane	< 2.00	ug/L		7/10/2019 15:45
1,2-Dichloropropane	< 2.00	ug/L		7/10/2019 15:45
1,3-Dichlorobenzene	< 2.00	ug/L		7/10/2019 15:45
1,4-Dichlorobenzene	< 2.00	ug/L		7/10/2019 15:45
1,4-Dioxane	< 20.0	ug/L		7/10/2019 15:45
2-Butanone	< 10.0	ug/L		7/10/2019 15:45
2-Hexanone	< 5.00	ug/L		7/10/2019 15:45
4-Methyl-2-pentanone	< 5.00	ug/L		7/10/2019 15:45
Acetone	< 10.0	ug/L		7/10/2019 15:45
Benzene	< 1.00	ug/L		7/10/2019 15:45
Bromochloromethane	< 5.00	ug/L		7/10/2019 15:45
Bromodichloromethane	< 2.00	ug/L		7/10/2019 15:45
Bromoform	< 5.00	ug/L		7/10/2019 15:45
Bromomethane	< 2.00	ug/L		7/10/2019 15:45
Carbon disulfide	< 2.00	ug/L		7/10/2019 15:45
Carbon Tetrachloride	< 2.00	ug/L		7/10/2019 15:45
Chlorobenzene	< 2.00	ug/L		7/10/2019 15:45

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MW-101			
Lab Sample ID:	192983-01		Date Sampled:	6/27/2019
Matrix:	Groundwater		Date Received:	6/27/2019
Chloroethane	< 2.00	ug/L	7/10/2019	15:45
Chloroform	< 2.00	ug/L	7/10/2019	15:45
Chloromethane	< 2.00	ug/L	7/10/2019	15:45
cis-1,2-Dichloroethene	< 2.00	ug/L	7/10/2019	15:45
cis-1,3-Dichloropropene	< 2.00	ug/L	7/10/2019	15:45
Cyclohexane	< 10.0	ug/L	7/10/2019	15:45
Dibromochloromethane	< 2.00	ug/L	7/10/2019	15:45
Dichlorodifluoromethane	< 2.00	ug/L	7/10/2019	15:45
Ethylbenzene	< 2.00	ug/L	7/10/2019	15:45
Freon 113	< 2.00	ug/L	7/10/2019	15:45
Isopropylbenzene	< 2.00	ug/L	7/10/2019	15:45
m,p-Xylene	< 2.00	ug/L	7/10/2019	15:45
Methyl acetate	< 2.00	ug/L	7/10/2019	15:45
Methyl tert-butyl Ether	< 2.00	ug/L	7/10/2019	15:45
Methylcyclohexane	< 2.00	ug/L	7/10/2019	15:45
Methylene chloride	< 5.00	ug/L	7/10/2019	15:45
o-Xylene	< 2.00	ug/L	7/10/2019	15:45
Styrene	< 5.00	ug/L	7/10/2019	15:45
Tetrachloroethene	< 2.00	ug/L	7/10/2019	15:45
Toluene	< 2.00	ug/L	7/10/2019	15:45
trans-1,2-Dichloroethene	< 2.00	ug/L	7/10/2019	15:45
trans-1,3-Dichloropropene	< 2.00	ug/L	7/10/2019	15:45
Trichloroethene	< 2.00	ug/L	7/10/2019	15:45
Trichlorofluoromethane	< 2.00	ug/L	7/10/2019	15:45
Vinyl chloride	< 2.00	ug/L	7/10/2019	15:45

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Report Prepared Monday, July 15, 2019



**Lab Project ID:** 192983

**Client:** **Bergmann Associates**

**Project Reference:** VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

**Sample Identifier:** MW-101

**Lab Sample ID:** 192983-01

**Date Sampled:** 6/27/2019

**Matrix:** Groundwater

**Date Received:** 6/27/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	<b>130</b>	73.4 - 131		7/10/2019	15:45
4-Bromofluorobenzene	<b>89.4</b>	57.2 - 129		7/10/2019	15:45
Pentafluorobenzene	<b>85.4</b>	87 - 112	*	7/10/2019	15:45
Toluene-D8	<b>95.4</b>	78.3 - 115		7/10/2019	15:45

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:** x62496.D

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*Report Prepared Monday, July 15, 2019*



**Lab Project ID:** 192983

**Client:** **Bergmann Associates**

**Project Reference:** VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

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**Sample Identifier:** MWR-101

**Lab Sample ID:** 192983-02

**Date Sampled:** 6/27/2019

**Matrix:** Groundwater

**Date Received:** 6/27/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		7/9/2019 10:01

**Method Reference(s):** EPA 7470A

**Preparation Date:** 7/8/2019

**Data File:** Hg190709A

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*Report Prepared Monday, July 15, 2019*



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MWR-101

Lab Sample ID: 192983-02

Date Sampled: 6/27/2019

Matrix: Groundwater

Date Received: 6/27/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	8.21	mg/L		7/1/2019 14:37
Antimony	< 0.0600	mg/L		7/1/2019 14:37
Arsenic	0.0109	mg/L		7/3/2019 16:03
Barium	< 0.100	mg/L		7/1/2019 14:37
Beryllium	< 0.00500	mg/L		7/1/2019 14:37
Cadmium	< 0.00500	mg/L		7/1/2019 14:37
Calcium	7.39	mg/L		7/1/2019 14:37
Chromium	0.0130	mg/L		7/1/2019 14:37
Cobalt	< 0.0500	mg/L		7/1/2019 14:37
Copper	0.0275	mg/L		7/1/2019 14:37
Iron	4.12	mg/L		7/1/2019 14:37
Lead	0.0440	mg/L		7/1/2019 14:37
Magnesium	3.85	mg/L		7/1/2019 14:37
Manganese	0.0486	mg/L		7/1/2019 14:37
Nickel	< 0.0400	mg/L		7/1/2019 14:37
Potassium	5.42	mg/L		7/1/2019 14:37
Selenium	< 0.0200	mg/L		7/8/2019 15:48
Silver	< 0.0100	mg/L		7/1/2019 14:37
Sodium	340	mg/L	E	7/1/2019 14:37
Thallium	< 0.0250	mg/L		7/1/2019 14:37
Vanadium	0.0171	mg/L	J	7/1/2019 14:37
Zinc	0.139	mg/L		7/1/2019 14:37

Method Reference(s): EPA 6010C  
EPA 3005A  
Preparation Date: 6/28/2019  
Data File: 19070C

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MWR-101

Lab Sample ID: 192983-02

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 11.0	ug/L		7/2/2019 20:53
1,2,4,5-Tetrachlorobenzene	< 11.0	ug/L		7/2/2019 20:53
1,2,4-Trichlorobenzene	< 11.0	ug/L		7/2/2019 20:53
1,2-Dichlorobenzene	< 11.0	ug/L		7/2/2019 20:53
1,3-Dichlorobenzene	< 11.0	ug/L		7/2/2019 20:53
1,4-Dichlorobenzene	< 11.0	ug/L		7/2/2019 20:53
2,2-Oxybis (1-chloropropane)	< 11.0	ug/L		7/2/2019 20:53
2,3,4,6-Tetrachlorophenol	< 11.0	ug/L		7/2/2019 20:53
2,4,5-Trichlorophenol	< 22.1	ug/L		7/2/2019 20:53
2,4,6-Trichlorophenol	< 11.0	ug/L		7/2/2019 20:53
2,4-Dichlorophenol	< 11.0	ug/L		7/2/2019 20:53
2,4-Dimethylphenol	< 22.1	ug/L		7/2/2019 20:53
2,4-Dinitrophenol	< 22.1	ug/L		7/2/2019 20:53
2,4-Dinitrotoluene	< 11.0	ug/L		7/2/2019 20:53
2,6-Dinitrotoluene	< 11.0	ug/L		7/2/2019 20:53
2-Chloronaphthalene	< 11.0	ug/L		7/2/2019 20:53
2-Chlorophenol	< 11.0	ug/L		7/2/2019 20:53
2-Methylnaphthalene	< 11.0	ug/L		7/2/2019 20:53
2-Methylphenol	< 11.0	ug/L		7/2/2019 20:53
2-Nitroaniline	< 22.1	ug/L		7/2/2019 20:53
2-Nitrophenol	< 11.0	ug/L		7/2/2019 20:53
3&4-Methylphenol	< 11.0	ug/L		7/2/2019 20:53
3,3'-Dichlorobenzidine	< 11.0	ug/L		7/2/2019 20:53
3-Nitroaniline	< 22.1	ug/L		7/2/2019 20:53
4,6-Dinitro-2-methylphenol	< 22.1	ug/L		7/2/2019 20:53
4-Bromophenyl phenyl ether	< 11.0	ug/L		7/2/2019 20:53
4-Chloro-3-methylphenol	< 11.0	ug/L		7/2/2019 20:53

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MWR-101			
Lab Sample ID:	192983-02		Date Sampled:	6/27/2019
Matrix:	Groundwater		Date Received:	6/27/2019
4-Chloroaniline	< 11.0	ug/L	7/2/2019	20:53
4-Chlorophenyl phenyl ether	< 11.0	ug/L	7/2/2019	20:53
4-Nitroaniline	< 22.1	ug/L	7/2/2019	20:53
4-Nitrophenol	< 22.1	ug/L	7/2/2019	20:53
Acenaphthene	< 11.0	ug/L	7/2/2019	20:53
Acenaphthylene	< 11.0	ug/L	7/2/2019	20:53
Acetophenone	< 11.0	ug/L	7/2/2019	20:53
Anthracene	< 11.0	ug/L	7/2/2019	20:53
Atrazine	< 11.0	ug/L	7/2/2019	20:53
Benzaldehyde	< 11.0	ug/L	7/2/2019	20:53
Benzo (a) anthracene	< 11.0	ug/L	7/2/2019	20:53
Benzo (a) pyrene	< 11.0	ug/L	7/2/2019	20:53
Benzo (b) fluoranthene	< 11.0	ug/L	7/2/2019	20:53
Benzo (g,h,i) perylene	< 11.0	ug/L	7/2/2019	20:53
Benzo (k) fluoranthene	< 11.0	ug/L	7/2/2019	20:53
Bis (2-chloroethoxy) methane	< 11.0	ug/L	7/2/2019	20:53
Bis (2-chloroethyl) ether	< 11.0	ug/L	7/2/2019	20:53
Bis (2-ethylhexyl) phthalate	< 11.0	ug/L	7/2/2019	20:53
Butylbenzylphthalate	< 11.0	ug/L	7/2/2019	20:53
Caprolactam	< 11.0	ug/L	7/2/2019	20:53
Carbazole	< 11.0	ug/L	7/2/2019	20:53
Chrysene	< 11.0	ug/L	7/2/2019	20:53
Dibenz (a,h) anthracene	< 11.0	ug/L	7/2/2019	20:53
Dibenzofuran	< 11.0	ug/L	7/2/2019	20:53
Diethyl phthalate	< 11.0	ug/L	7/2/2019	20:53
Dimethyl phthalate	< 22.1	ug/L	7/2/2019	20:53
Di-n-butyl phthalate	< 11.0	ug/L	7/2/2019	20:53
Di-n-octylphthalate	< 11.0	ug/L	7/2/2019	20:53
Fluoranthene	< 11.0	ug/L	7/2/2019	20:53
Fluorene	< 11.0	ug/L	7/2/2019	20:53

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MWR-101				
Lab Sample ID:	192983-02			Date Sampled:	6/27/2019
Matrix:	Groundwater			Date Received:	6/27/2019
Hexachlorobenzene	< 11.0	ug/L		7/2/2019	20:53
Hexachlorobutadiene	< 11.0	ug/L		7/2/2019	20:53
Hexachlorocyclopentadiene	< 11.0	ug/L		7/2/2019	20:53
Hexachloroethane	< 11.0	ug/L		7/2/2019	20:53
Indeno (1,2,3-cd) pyrene	< 11.0	ug/L		7/2/2019	20:53
Isophorone	< 11.0	ug/L		7/2/2019	20:53
Naphthalene	< 11.0	ug/L		7/2/2019	20:53
Nitrobenzene	< 11.0	ug/L		7/2/2019	20:53
N-Nitroso-di-n-propylamine	< 11.0	ug/L		7/2/2019	20:53
N-Nitrosodiphenylamine	< 11.0	ug/L		7/2/2019	20:53
Pentachlorophenol	< 22.1	ug/L		7/2/2019	20:53
Phenanthrene	< 11.0	ug/L		7/2/2019	20:53
Phenol	< 11.0	ug/L		7/2/2019	20:53
Pyrene	< 11.0	ug/L		7/2/2019	20:53
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	63.0	54.2 - 126		7/2/2019	20:53
2-Fluorobiphenyl	55.9	37.6 - 102		7/2/2019	20:53
2-Fluorophenol	39.1	15.1 - 106		7/2/2019	20:53
Nitrobenzene-d5	79.0	53.3 - 103		7/2/2019	20:53
Phenol-d5	26.2	10 - 108		7/2/2019	20:53
Terphenyl-d14	81.3	61.8 - 114		7/2/2019	20:53

Method Reference(s): EPA 8270D  
EPA 3510C  
Preparation Date: 7/1/2019  
Data File: B38348.D

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MWR-101

Lab Sample ID: 192983-02

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		7/10/2019 16:07
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		7/10/2019 16:07
1,1,2-Trichloroethane	< 2.00	ug/L		7/10/2019 16:07
1,1-Dichloroethane	< 2.00	ug/L		7/10/2019 16:07
1,1-Dichloroethene	< 2.00	ug/L		7/10/2019 16:07
1,2,3-Trichlorobenzene	< 5.00	ug/L		7/10/2019 16:07
1,2,4-Trichlorobenzene	< 5.00	ug/L		7/10/2019 16:07
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		7/10/2019 16:07
1,2-Dibromoethane	< 2.00	ug/L		7/10/2019 16:07
1,2-Dichlorobenzene	< 2.00	ug/L		7/10/2019 16:07
1,2-Dichloroethane	< 2.00	ug/L		7/10/2019 16:07
1,2-Dichloropropane	< 2.00	ug/L		7/10/2019 16:07
1,3-Dichlorobenzene	< 2.00	ug/L		7/10/2019 16:07
1,4-Dichlorobenzene	< 2.00	ug/L		7/10/2019 16:07
1,4-Dioxane	< 20.0	ug/L		7/10/2019 16:07
2-Butanone	< 10.0	ug/L		7/10/2019 16:07
2-Hexanone	< 5.00	ug/L		7/10/2019 16:07
4-Methyl-2-pentanone	< 5.00	ug/L		7/10/2019 16:07
Acetone	< 10.0	ug/L		7/10/2019 16:07
Benzene	< 1.00	ug/L		7/10/2019 16:07
Bromochloromethane	< 5.00	ug/L		7/10/2019 16:07
Bromodichloromethane	< 2.00	ug/L		7/10/2019 16:07
Bromoform	< 5.00	ug/L		7/10/2019 16:07
Bromomethane	< 2.00	ug/L		7/10/2019 16:07
Carbon disulfide	< 2.00	ug/L		7/10/2019 16:07
Carbon Tetrachloride	< 2.00	ug/L		7/10/2019 16:07
Chlorobenzene	< 2.00	ug/L		7/10/2019 16:07

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MWR-101			
Lab Sample ID:	192983-02		Date Sampled:	6/27/2019
Matrix:	Groundwater		Date Received:	6/27/2019
Chloroethane	< 2.00	ug/L	7/10/2019	16:07
Chloroform	< 2.00	ug/L	7/10/2019	16:07
Chloromethane	< 2.00	ug/L	7/10/2019	16:07
cis-1,2-Dichloroethene	< 2.00	ug/L	7/10/2019	16:07
cis-1,3-Dichloropropene	< 2.00	ug/L	7/10/2019	16:07
Cyclohexane	< 10.0	ug/L	7/10/2019	16:07
Dibromochloromethane	< 2.00	ug/L	7/10/2019	16:07
Dichlorodifluoromethane	< 2.00	ug/L	7/10/2019	16:07
Ethylbenzene	< 2.00	ug/L	7/10/2019	16:07
Freon 113	< 2.00	ug/L	7/10/2019	16:07
Isopropylbenzene	< 2.00	ug/L	7/10/2019	16:07
m,p-Xylene	< 2.00	ug/L	7/10/2019	16:07
Methyl acetate	< 2.00	ug/L	7/10/2019	16:07
Methyl tert-butyl Ether	< 2.00	ug/L	7/10/2019	16:07
Methylcyclohexane	< 2.00	ug/L	7/10/2019	16:07
Methylene chloride	< 5.00	ug/L	7/10/2019	16:07
o-Xylene	< 2.00	ug/L	7/10/2019	16:07
Styrene	< 5.00	ug/L	7/10/2019	16:07
Tetrachloroethene	< 2.00	ug/L	7/10/2019	16:07
Toluene	< 2.00	ug/L	7/10/2019	16:07
trans-1,2-Dichloroethene	< 2.00	ug/L	7/10/2019	16:07
trans-1,3-Dichloropropene	< 2.00	ug/L	7/10/2019	16:07
Trichloroethene	< 2.00	ug/L	7/10/2019	16:07
Trichlorofluoromethane	< 2.00	ug/L	7/10/2019	16:07
Vinyl chloride	< 2.00	ug/L	7/10/2019	16:07

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Report Prepared Monday, July 15, 2019



**Lab Project ID:** 192983

**Client:** **Bergmann Associates**

**Project Reference:** VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

**Sample Identifier:** MWR-101

**Lab Sample ID:** 192983-02

**Date Sampled:** 6/27/2019

**Matrix:** Groundwater

**Date Received:** 6/27/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	<b>126</b>	73.4 - 131		7/10/2019	16:07
4-Bromofluorobenzene	<b>88.3</b>	57.2 - 129		7/10/2019	16:07
Pentafluorobenzene	<b>89.0</b>	87 - 112		7/10/2019	16:07
Toluene-D8	<b>94.2</b>	78.3 - 115		7/10/2019	16:07

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:** x62497.D

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

*Report Prepared Monday, July 15, 2019*



**Lab Project ID:** 192983

**Client:** **Bergmann Associates**

**Project Reference:** VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

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**Sample Identifier:** MW-103

**Lab Sample ID:** 192983-03

**Date Sampled:** 6/27/2019

**Matrix:** Groundwater

**Date Received:** 6/27/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	<b>0.000203</b>	mg/L		7/9/2019 10:03

**Method Reference(s):** EPA 7470A

**Preparation Date:** 7/8/2019

**Data File:** Hg190709A

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*Report Prepared Monday, July 15, 2019*



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MW-103

Lab Sample ID: 192983-03

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	0.118	mg/L		7/1/2019 14:41
Antimony	< 0.0600	mg/L		7/1/2019 14:41
Arsenic	< 0.0100	mg/L		7/3/2019 16:08
Barium	0.191	mg/L		7/1/2019 14:41
Beryllium	< 0.00500	mg/L		7/1/2019 14:41
Cadmium	< 0.00500	mg/L		7/1/2019 14:41
Calcium	107	mg/L		7/1/2019 14:41
Chromium	< 0.0100	mg/L		7/1/2019 14:41
Cobalt	< 0.0500	mg/L		7/1/2019 14:41
Copper	< 0.0400	mg/L	J	7/1/2019 14:41
Iron	9.14	mg/L		7/1/2019 14:41
Lead	< 0.0100	mg/L		7/1/2019 14:41
Magnesium	26.4	mg/L		7/1/2019 14:41
Manganese	0.412	mg/L		7/1/2019 14:41
Nickel	< 0.0400	mg/L		7/1/2019 14:41
Potassium	8.65	mg/L		7/1/2019 14:41
Selenium	0.0113	mg/L	J	7/8/2019 15:57
Silver	< 0.0100	mg/L		7/1/2019 14:41
Sodium	132	mg/L		7/1/2019 14:41
Thallium	< 0.0250	mg/L		7/1/2019 14:41
Vanadium	< 0.0250	mg/L		7/1/2019 14:41
Zinc	0.0525	mg/L	J	7/1/2019 14:41

Method Reference(s): EPA 6010C  
EPA 3005A  
Preparation Date: 6/28/2019  
Data File: 19070C

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MW-103

Lab Sample ID: 192983-03

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		7/2/2019 21:22
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		7/2/2019 21:22
1,2,4-Trichlorobenzene	< 10.0	ug/L		7/2/2019 21:22
1,2-Dichlorobenzene	< 10.0	ug/L		7/2/2019 21:22
1,3-Dichlorobenzene	< 10.0	ug/L		7/2/2019 21:22
1,4-Dichlorobenzene	< 10.0	ug/L		7/2/2019 21:22
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		7/2/2019 21:22
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		7/2/2019 21:22
2,4,5-Trichlorophenol	< 20.0	ug/L		7/2/2019 21:22
2,4,6-Trichlorophenol	< 10.0	ug/L		7/2/2019 21:22
2,4-Dichlorophenol	< 10.0	ug/L		7/2/2019 21:22
2,4-Dimethylphenol	< 20.0	ug/L		7/2/2019 21:22
2,4-Dinitrophenol	< 20.0	ug/L		7/2/2019 21:22
2,4-Dinitrotoluene	< 10.0	ug/L		7/2/2019 21:22
2,6-Dinitrotoluene	< 10.0	ug/L		7/2/2019 21:22
2-Chloronaphthalene	< 10.0	ug/L		7/2/2019 21:22
2-Chlorophenol	< 10.0	ug/L		7/2/2019 21:22
2-Methylnapthalene	< 10.0	ug/L		7/2/2019 21:22
2-Methylphenol	< 10.0	ug/L		7/2/2019 21:22
2-Nitroaniline	< 20.0	ug/L		7/2/2019 21:22
2-Nitrophenol	< 10.0	ug/L		7/2/2019 21:22
3&4-Methylphenol	< 10.0	ug/L		7/2/2019 21:22
3,3'-Dichlorobenzidine	< 10.0	ug/L		7/2/2019 21:22
3-Nitroaniline	< 20.0	ug/L		7/2/2019 21:22
4,6-Dinitro-2-methylphenol	< 20.0	ug/L		7/2/2019 21:22
4-Bromophenyl phenyl ether	< 10.0	ug/L		7/2/2019 21:22
4-Chloro-3-methylphenol	< 10.0	ug/L		7/2/2019 21:22

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MW-103			
Lab Sample ID:	192983-03		Date Sampled:	6/27/2019
Matrix:	Groundwater		Date Received:	6/27/2019
4-Chloroaniline	< 10.0	ug/L	7/2/2019	21:22
4-Chlorophenyl phenyl ether	< 10.0	ug/L	7/2/2019	21:22
4-Nitroaniline	< 20.0	ug/L	7/2/2019	21:22
4-Nitrophenol	< 20.0	ug/L	7/2/2019	21:22
Acenaphthene	< 10.0	ug/L	7/2/2019	21:22
Acenaphthylene	< 10.0	ug/L	7/2/2019	21:22
Acetophenone	< 10.0	ug/L	7/2/2019	21:22
Anthracene	< 10.0	ug/L	7/2/2019	21:22
Atrazine	< 10.0	ug/L	7/2/2019	21:22
Benzaldehyde	< 10.0	ug/L	7/2/2019	21:22
Benzo (a) anthracene	< 10.0	ug/L	7/2/2019	21:22
Benzo (a) pyrene	< 10.0	ug/L	7/2/2019	21:22
Benzo (b) fluoranthene	< 10.0	ug/L	7/2/2019	21:22
Benzo (g,h,i) perylene	< 10.0	ug/L	7/2/2019	21:22
Benzo (k) fluoranthene	< 10.0	ug/L	7/2/2019	21:22
Bis (2-chloroethoxy) methane	< 10.0	ug/L	7/2/2019	21:22
Bis (2-chloroethyl) ether	< 10.0	ug/L	7/2/2019	21:22
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	7/2/2019	21:22
Butylbenzylphthalate	< 10.0	ug/L	7/2/2019	21:22
Caprolactam	< 10.0	ug/L	7/2/2019	21:22
Carbazole	< 10.0	ug/L	7/2/2019	21:22
Chrysene	< 10.0	ug/L	7/2/2019	21:22
Dibenz (a,h) anthracene	< 10.0	ug/L	7/2/2019	21:22
Dibenzofuran	< 10.0	ug/L	7/2/2019	21:22
Diethyl phthalate	< 10.0	ug/L	7/2/2019	21:22
Dimethyl phthalate	< 20.0	ug/L	7/2/2019	21:22
Di-n-butyl phthalate	< 10.0	ug/L	7/2/2019	21:22
Di-n-octylphthalate	< 10.0	ug/L	7/2/2019	21:22
Fluoranthene	< 10.0	ug/L	7/2/2019	21:22
Fluorene	< 10.0	ug/L	7/2/2019	21:22

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MW-103				
Lab Sample ID:	192983-03			Date Sampled:	6/27/2019
Matrix:	Groundwater			Date Received:	6/27/2019
Hexachlorobenzene	< 10.0	ug/L		7/2/2019	21:22
Hexachlorobutadiene	< 10.0	ug/L		7/2/2019	21:22
Hexachlorocyclopentadiene	< 10.0	ug/L		7/2/2019	21:22
Hexachloroethane	< 10.0	ug/L		7/2/2019	21:22
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L		7/2/2019	21:22
Isophorone	< 10.0	ug/L		7/2/2019	21:22
Naphthalene	< 10.0	ug/L		7/2/2019	21:22
Nitrobenzene	< 10.0	ug/L		7/2/2019	21:22
N-Nitroso-di-n-propylamine	< 10.0	ug/L		7/2/2019	21:22
N-Nitrosodiphenylamine	< 10.0	ug/L		7/2/2019	21:22
Pentachlorophenol	< 20.0	ug/L		7/2/2019	21:22
Phenanthrene	< 10.0	ug/L		7/2/2019	21:22
Phenol	< 10.0	ug/L		7/2/2019	21:22
Pyrene	< 10.0	ug/L		7/2/2019	21:22
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	78.2	54.2 - 126		7/2/2019	21:22
2-Fluorobiphenyl	48.7	37.6 - 102		7/2/2019	21:22
2-Fluorophenol	39.9	15.1 - 106		7/2/2019	21:22
Nitrobenzene-d5	63.8	53.3 - 103		7/2/2019	21:22
Phenol-d5	28.9	10 - 108		7/2/2019	21:22
Terphenyl-d14	80.1	61.8 - 114		7/2/2019	21:22

Method Reference(s): EPA 8270D  
EPA 3510C  
Preparation Date: 7/1/2019  
Data File: B38349.D

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MW-103

Lab Sample ID: 192983-03

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		7/10/2019 16:30
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		7/10/2019 16:30
1,1,2-Trichloroethane	< 2.00	ug/L		7/10/2019 16:30
1,1-Dichloroethane	< 2.00	ug/L		7/10/2019 16:30
1,1-Dichloroethene	< 2.00	ug/L		7/10/2019 16:30
1,2,3-Trichlorobenzene	< 5.00	ug/L		7/10/2019 16:30
1,2,4-Trichlorobenzene	< 5.00	ug/L		7/10/2019 16:30
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		7/10/2019 16:30
1,2-Dibromoethane	< 2.00	ug/L		7/10/2019 16:30
1,2-Dichlorobenzene	< 2.00	ug/L		7/10/2019 16:30
1,2-Dichloroethane	< 2.00	ug/L		7/10/2019 16:30
1,2-Dichloropropane	< 2.00	ug/L		7/10/2019 16:30
1,3-Dichlorobenzene	< 2.00	ug/L		7/10/2019 16:30
1,4-Dichlorobenzene	< 2.00	ug/L		7/10/2019 16:30
1,4-Dioxane	< 20.0	ug/L		7/10/2019 16:30
2-Butanone	< 10.0	ug/L		7/10/2019 16:30
2-Hexanone	< 5.00	ug/L		7/10/2019 16:30
4-Methyl-2-pentanone	< 5.00	ug/L		7/10/2019 16:30
Acetone	< 10.0	ug/L		7/10/2019 16:30
Benzene	< 1.00	ug/L		7/10/2019 16:30
Bromochloromethane	< 5.00	ug/L		7/10/2019 16:30
Bromodichloromethane	< 2.00	ug/L		7/10/2019 16:30
Bromoform	< 5.00	ug/L		7/10/2019 16:30
Bromomethane	< 2.00	ug/L		7/10/2019 16:30
Carbon disulfide	< 2.00	ug/L		7/10/2019 16:30
Carbon Tetrachloride	< 2.00	ug/L		7/10/2019 16:30
Chlorobenzene	< 2.00	ug/L		7/10/2019 16:30

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MW-103			
Lab Sample ID:	192983-03		Date Sampled:	6/27/2019
Matrix:	Groundwater		Date Received:	6/27/2019
Chloroethane	< 2.00	ug/L	7/10/2019	16:30
Chloroform	< 2.00	ug/L	7/10/2019	16:30
Chloromethane	< 2.00	ug/L	7/10/2019	16:30
cis-1,2-Dichloroethene	< 2.00	ug/L	7/10/2019	16:30
cis-1,3-Dichloropropene	< 2.00	ug/L	7/10/2019	16:30
Cyclohexane	< 10.0	ug/L	7/10/2019	16:30
Dibromochloromethane	< 2.00	ug/L	7/10/2019	16:30
Dichlorodifluoromethane	< 2.00	ug/L	7/10/2019	16:30
Ethylbenzene	< 2.00	ug/L	7/10/2019	16:30
Freon 113	< 2.00	ug/L	7/10/2019	16:30
Isopropylbenzene	< 2.00	ug/L	7/10/2019	16:30
m,p-Xylene	< 2.00	ug/L	7/10/2019	16:30
Methyl acetate	< 2.00	ug/L	7/10/2019	16:30
Methyl tert-butyl Ether	< 2.00	ug/L	7/10/2019	16:30
Methylcyclohexane	< 2.00	ug/L	7/10/2019	16:30
Methylene chloride	< 5.00	ug/L	7/10/2019	16:30
o-Xylene	< 2.00	ug/L	7/10/2019	16:30
Styrene	< 5.00	ug/L	7/10/2019	16:30
Tetrachloroethene	< 2.00	ug/L	7/10/2019	16:30
Toluene	< 2.00	ug/L	7/10/2019	16:30
trans-1,2-Dichloroethene	< 2.00	ug/L	7/10/2019	16:30
trans-1,3-Dichloropropene	< 2.00	ug/L	7/10/2019	16:30
Trichloroethene	< 2.00	ug/L	7/10/2019	16:30
Trichlorofluoromethane	< 2.00	ug/L	7/10/2019	16:30
Vinyl chloride	< 2.00	ug/L	7/10/2019	16:30

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Report Prepared Monday, July 15, 2019



**Lab Project ID:** 192983

**Client:** **Bergmann Associates**

**Project Reference:** VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

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**Sample Identifier:** MW-103

**Lab Sample ID:** 192983-03

**Date Sampled:** 6/27/2019

**Matrix:** Groundwater

**Date Received:** 6/27/2019

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<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	<b>128</b>	73.4 - 131		7/10/2019	16:30
4-Bromofluorobenzene	<b>92.8</b>	57.2 - 129		7/10/2019	16:30
Pentafluorobenzene	<b>89.0</b>	87 - 112		7/10/2019	16:30
Toluene-D8	<b>95.9</b>	78.3 - 115		7/10/2019	16:30

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:** x62498.D

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*Report Prepared Monday, July 15, 2019*



**Lab Project ID:** 192983

**Client:** **Bergmann Associates**

**Project Reference:** VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

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**Sample Identifier:** MW-107

**Lab Sample ID:** 192983-04

**Date Sampled:** 6/27/2019

**Matrix:** Groundwater

**Date Received:** 6/27/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		7/9/2019 10:05

**Method Reference(s):** EPA 7470A

**Preparation Date:** 7/8/2019

**Data File:** Hg190709A

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*Report Prepared Monday, July 15, 2019*



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MW-107

Lab Sample ID: 192983-04

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	< 0.100	mg/L		7/1/2019 14:46
Antimony	< 0.0600	mg/L		7/1/2019 14:46
Arsenic	< 0.0100	mg/L		7/3/2019 16:12
Barium	<b>0.0906</b>	mg/L	J	7/1/2019 14:46
Beryllium	< 0.00500	mg/L		7/1/2019 14:46
Cadmium	< 0.00500	mg/L		7/1/2019 14:46
Calcium	<b>187</b>	mg/L		7/1/2019 14:46
Chromium	< 0.0100	mg/L		7/1/2019 14:46
Cobalt	< 0.0500	mg/L		7/1/2019 14:46
Copper	< 0.0400	mg/L		7/1/2019 14:46
Iron	<b>3.81</b>	mg/L		7/1/2019 14:46
Lead	< 0.0100	mg/L		7/1/2019 14:46
Magnesium	<b>29.3</b>	mg/L		7/1/2019 14:46
Manganese	<b>0.394</b>	mg/L		7/1/2019 14:46
Nickel	< 0.0400	mg/L		7/1/2019 14:46
Potassium	<b>6.43</b>	mg/L		7/1/2019 14:46
Selenium	< 0.0200	mg/L		7/8/2019 15:57
Silver	< 0.0100	mg/L		7/1/2019 14:46
Sodium	<b>54.5</b>	mg/L	M	7/1/2019 14:46
Thallium	< 0.0250	mg/L		7/1/2019 14:46
Vanadium	< 0.0250	mg/L		7/1/2019 14:46
Zinc	<b>0.0340</b>	mg/L	J	7/1/2019 14:46

Method Reference(s): EPA 6010C  
EPA 3005A  
Preparation Date: 6/28/2019  
Data File: 19070C

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MW-107

Lab Sample ID: 192983-04

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.6	ug/L		7/2/2019 21:50
1,2,4,5-Tetrachlorobenzene	< 10.6	ug/L		7/2/2019 21:50
1,2,4-Trichlorobenzene	< 10.6	ug/L		7/2/2019 21:50
1,2-Dichlorobenzene	< 10.6	ug/L		7/2/2019 21:50
1,3-Dichlorobenzene	< 10.6	ug/L		7/2/2019 21:50
1,4-Dichlorobenzene	< 10.6	ug/L		7/2/2019 21:50
2,2-Oxybis (1-chloropropane)	< 10.6	ug/L		7/2/2019 21:50
2,3,4,6-Tetrachlorophenol	< 10.6	ug/L		7/2/2019 21:50
2,4,5-Trichlorophenol	< 21.2	ug/L		7/2/2019 21:50
2,4,6-Trichlorophenol	< 10.6	ug/L		7/2/2019 21:50
2,4-Dichlorophenol	< 10.6	ug/L		7/2/2019 21:50
2,4-Dimethylphenol	< 21.2	ug/L		7/2/2019 21:50
2,4-Dinitrophenol	< 21.2	ug/L		7/2/2019 21:50
2,4-Dinitrotoluene	< 10.6	ug/L		7/2/2019 21:50
2,6-Dinitrotoluene	< 10.6	ug/L		7/2/2019 21:50
2-Chloronaphthalene	< 10.6	ug/L		7/2/2019 21:50
2-Chlorophenol	< 10.6	ug/L		7/2/2019 21:50
2-Methylnaphthalene	< 10.6	ug/L		7/2/2019 21:50
2-Methylphenol	< 10.6	ug/L		7/2/2019 21:50
2-Nitroaniline	< 21.2	ug/L		7/2/2019 21:50
2-Nitrophenol	< 10.6	ug/L		7/2/2019 21:50
3&4-Methylphenol	< 10.6	ug/L		7/2/2019 21:50
3,3'-Dichlorobenzidine	< 10.6	ug/L		7/2/2019 21:50
3-Nitroaniline	< 21.2	ug/L		7/2/2019 21:50
4,6-Dinitro-2-methylphenol	< 21.2	ug/L		7/2/2019 21:50
4-Bromophenyl phenyl ether	< 10.6	ug/L		7/2/2019 21:50
4-Chloro-3-methylphenol	< 10.6	ug/L		7/2/2019 21:50

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MW-107			
Lab Sample ID:	192983-04		Date Sampled:	6/27/2019
Matrix:	Groundwater		Date Received:	6/27/2019
4-Chloroaniline	< 10.6	ug/L	7/2/2019	21:50
4-Chlorophenyl phenyl ether	< 10.6	ug/L	7/2/2019	21:50
4-Nitroaniline	< 21.2	ug/L	7/2/2019	21:50
4-Nitrophenol	< 21.2	ug/L	7/2/2019	21:50
Acenaphthene	< 10.6	ug/L	7/2/2019	21:50
Acenaphthylene	< 10.6	ug/L	7/2/2019	21:50
Acetophenone	< 10.6	ug/L	7/2/2019	21:50
Anthracene	< 10.6	ug/L	7/2/2019	21:50
Atrazine	< 10.6	ug/L	7/2/2019	21:50
Benzaldehyde	< 10.6	ug/L	7/2/2019	21:50
Benzo (a) anthracene	< 10.6	ug/L	7/2/2019	21:50
Benzo (a) pyrene	< 10.6	ug/L	7/2/2019	21:50
Benzo (b) fluoranthene	< 10.6	ug/L	7/2/2019	21:50
Benzo (g,h,i) perylene	< 10.6	ug/L	7/2/2019	21:50
Benzo (k) fluoranthene	< 10.6	ug/L	7/2/2019	21:50
Bis (2-chloroethoxy) methane	< 10.6	ug/L	7/2/2019	21:50
Bis (2-chloroethyl) ether	< 10.6	ug/L	7/2/2019	21:50
Bis (2-ethylhexyl) phthalate	< 10.6	ug/L	7/2/2019	21:50
Butylbenzylphthalate	< 10.6	ug/L	7/2/2019	21:50
Caprolactam	< 10.6	ug/L	7/2/2019	21:50
Carbazole	< 10.6	ug/L	7/2/2019	21:50
Chrysene	< 10.6	ug/L	7/2/2019	21:50
Dibenz (a,h) anthracene	< 10.6	ug/L	7/2/2019	21:50
Dibenzofuran	< 10.6	ug/L	7/2/2019	21:50
Diethyl phthalate	< 10.6	ug/L	7/2/2019	21:50
Dimethyl phthalate	< 21.2	ug/L	7/2/2019	21:50
Di-n-butyl phthalate	< 10.6	ug/L	7/2/2019	21:50
Di-n-octylphthalate	< 10.6	ug/L	7/2/2019	21:50
Fluoranthene	< 10.6	ug/L	7/2/2019	21:50
Fluorene	< 10.6	ug/L	7/2/2019	21:50

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MW-107				
Lab Sample ID:	192983-04			Date Sampled:	6/27/2019
Matrix:	Groundwater			Date Received:	6/27/2019
Hexachlorobenzene	< 10.6	ug/L		7/2/2019	21:50
Hexachlorobutadiene	< 10.6	ug/L		7/2/2019	21:50
Hexachlorocyclopentadiene	< 10.6	ug/L		7/2/2019	21:50
Hexachloroethane	< 10.6	ug/L		7/2/2019	21:50
Indeno (1,2,3-cd) pyrene	< 10.6	ug/L		7/2/2019	21:50
Isophorone	< 10.6	ug/L		7/2/2019	21:50
Naphthalene	< 10.6	ug/L		7/2/2019	21:50
Nitrobenzene	< 10.6	ug/L		7/2/2019	21:50
N-Nitroso-di-n-propylamine	< 10.6	ug/L		7/2/2019	21:50
N-Nitrosodiphenylamine	< 10.6	ug/L		7/2/2019	21:50
Pentachlorophenol	< 21.2	ug/L		7/2/2019	21:50
Phenanthrene	< 10.6	ug/L		7/2/2019	21:50
Phenol	< 10.6	ug/L		7/2/2019	21:50
Pyrene	< 10.6	ug/L		7/2/2019	21:50
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>82.4</b>	54.2 - 126		7/2/2019	21:50
2-Fluorobiphenyl	<b>62.9</b>	37.6 - 102		7/2/2019	21:50
2-Fluorophenol	<b>49.0</b>	15.1 - 106		7/2/2019	21:50
Nitrobenzene-d5	<b>78.2</b>	53.3 - 103		7/2/2019	21:50
Phenol-d5	<b>30.9</b>	10 - 108		7/2/2019	21:50
Terphenyl-d14	<b>86.8</b>	61.8 - 114		7/2/2019	21:50

Method Reference(s): EPA 8270D  
EPA 3510C  
Preparation Date: 7/1/2019  
Data File: B38350.D

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MW-107

Lab Sample ID: 192983-04

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		7/10/2019 15:22
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		7/10/2019 15:22
1,1,2-Trichloroethane	< 2.00	ug/L		7/10/2019 15:22
1,1-Dichloroethane	< 2.00	ug/L		7/10/2019 15:22
1,1-Dichloroethene	< 2.00	ug/L		7/10/2019 15:22
1,2,3-Trichlorobenzene	< 5.00	ug/L		7/10/2019 15:22
1,2,4-Trichlorobenzene	< 5.00	ug/L		7/10/2019 15:22
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		7/10/2019 15:22
1,2-Dibromoethane	< 2.00	ug/L		7/10/2019 15:22
1,2-Dichlorobenzene	< 2.00	ug/L		7/10/2019 15:22
1,2-Dichloroethane	< 2.00	ug/L		7/10/2019 15:22
1,2-Dichloropropane	< 2.00	ug/L		7/10/2019 15:22
1,3-Dichlorobenzene	< 2.00	ug/L		7/10/2019 15:22
1,4-Dichlorobenzene	< 2.00	ug/L		7/10/2019 15:22
1,4-Dioxane	< 20.0	ug/L		7/10/2019 15:22
2-Butanone	< 10.0	ug/L		7/10/2019 15:22
2-Hexanone	< 5.00	ug/L		7/10/2019 15:22
4-Methyl-2-pentanone	< 5.00	ug/L		7/10/2019 15:22
Acetone	< 10.0	ug/L		7/10/2019 15:22
Benzene	< 1.00	ug/L		7/10/2019 15:22
Bromochloromethane	< 5.00	ug/L		7/10/2019 15:22
Bromodichloromethane	< 2.00	ug/L		7/10/2019 15:22
Bromoform	< 5.00	ug/L		7/10/2019 15:22
Bromomethane	< 2.00	ug/L		7/10/2019 15:22
Carbon disulfide	< 2.00	ug/L		7/10/2019 15:22
Carbon Tetrachloride	< 2.00	ug/L		7/10/2019 15:22
Chlorobenzene	< 2.00	ug/L		7/10/2019 15:22

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MW-107			
Lab Sample ID:	192983-04		Date Sampled:	6/27/2019
Matrix:	Groundwater		Date Received:	6/27/2019
Chloroethane	< 2.00	ug/L	7/10/2019	15:22
Chloroform	< 2.00	ug/L	7/10/2019	15:22
Chloromethane	< 2.00	ug/L	7/10/2019	15:22
cis-1,2-Dichloroethene	< 2.00	ug/L	7/10/2019	15:22
cis-1,3-Dichloropropene	< 2.00	ug/L	7/10/2019	15:22
Cyclohexane	< 10.0	ug/L	7/10/2019	15:22
Dibromochloromethane	< 2.00	ug/L	7/10/2019	15:22
Dichlorodifluoromethane	< 2.00	ug/L	7/10/2019	15:22
Ethylbenzene	< 2.00	ug/L	7/10/2019	15:22
Freon 113	< 2.00	ug/L	7/10/2019	15:22
Isopropylbenzene	< 2.00	ug/L	7/10/2019	15:22
m,p-Xylene	< 2.00	ug/L	7/10/2019	15:22
Methyl acetate	< 2.00	ug/L	7/10/2019	15:22
Methyl tert-butyl Ether	< 2.00	ug/L	7/10/2019	15:22
Methylcyclohexane	< 2.00	ug/L	7/10/2019	15:22
Methylene chloride	< 5.00	ug/L	7/10/2019	15:22
o-Xylene	< 2.00	ug/L	7/10/2019	15:22
Styrene	< 5.00	ug/L	7/10/2019	15:22
Tetrachloroethene	< 2.00	ug/L	7/10/2019	15:22
Toluene	< 2.00	ug/L	7/10/2019	15:22
trans-1,2-Dichloroethene	< 2.00	ug/L	7/10/2019	15:22
trans-1,3-Dichloropropene	< 2.00	ug/L	7/10/2019	15:22
Trichloroethene	< 2.00	ug/L	7/10/2019	15:22
Trichlorofluoromethane	< 2.00	ug/L	7/10/2019	15:22
Vinyl chloride	< 2.00	ug/L	7/10/2019	15:22

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Report Prepared Monday, July 15, 2019



**Lab Project ID:** 192983

**Client:** **Bergmann Associates**

**Project Reference:** VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

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**Sample Identifier:** MW-107

**Lab Sample ID:** 192983-04

**Date Sampled:** 6/27/2019

**Matrix:** Groundwater

**Date Received:** 6/27/2019

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<u><b>Surrogate</b></u>	<u><b>Percent Recovery</b></u>	<u><b>Limits</b></u>	<u><b>Outliers</b></u>	<u><b>Date Analyzed</b></u>	
1,2-Dichloroethane-d4	<b>124</b>	73.4 - 131		7/10/2019	15:22
4-Bromofluorobenzene	<b>86.5</b>	57.2 - 129		7/10/2019	15:22
Pentafluorobenzene	<b>87.0</b>	87 - 112		7/10/2019	15:22
Toluene-D8	<b>94.2</b>	78.3 - 115		7/10/2019	15:22

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:** x62495.D

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*Report Prepared Monday, July 15, 2019*



**Lab Project ID:** 192983

**Client:** **Bergmann Associates**

**Project Reference:** VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

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**Sample Identifier:** MW-106

**Lab Sample ID:** 192983-05

**Date Sampled:** 6/27/2019

**Matrix:** Groundwater

**Date Received:** 6/27/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		7/9/2019 10:15

**Method Reference(s):** EPA 7470A

**Preparation Date:** 7/8/2019

**Data File:** Hg190709A

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*Report Prepared Monday, July 15, 2019*



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MW-106

Lab Sample ID: 192983-05

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	< 0.100	mg/L		7/1/2019 15:17
Antimony	< 0.0600	mg/L		7/1/2019 15:17
Arsenic	< 0.0100	mg/L		7/1/2019 15:17
Barium	<b>0.0555</b>	mg/L	J	7/1/2019 15:17
Beryllium	< 0.00500	mg/L		7/1/2019 15:17
Cadmium	< 0.00500	mg/L		7/1/2019 15:17
Calcium	<b>52.7</b>	mg/L		7/1/2019 15:17
Chromium	< 0.0100	mg/L		7/1/2019 15:17
Cobalt	< 0.0500	mg/L		7/1/2019 15:17
Copper	< 0.0400	mg/L		7/1/2019 15:17
Iron	<b>0.448</b>	mg/L		7/1/2019 15:17
Lead	< 0.0100	mg/L		7/1/2019 15:17
Magnesium	<b>11.9</b>	mg/L		7/1/2019 15:17
Manganese	<b>0.0769</b>	mg/L		7/1/2019 15:17
Nickel	< 0.0400	mg/L		7/1/2019 15:17
Potassium	<b>2.35</b>	mg/L	J	7/1/2019 15:17
Selenium	< 0.0200	mg/L		7/8/2019 16:28
Silver	< 0.0100	mg/L		7/1/2019 15:17
Sodium	<b>34.1</b>	mg/L		7/1/2019 15:17
Thallium	< 0.0250	mg/L		7/1/2019 15:17
Vanadium	< 0.0250	mg/L		7/1/2019 15:17
Zinc	< 0.0600	mg/L		7/1/2019 15:17

Method Reference(s): EPA 6010C  
EPA 3005A  
Preparation Date: 6/28/2019  
Data File: 19070C

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MW-106

Lab Sample ID: 192983-05

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		7/2/2019 23:16
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		7/2/2019 23:16
1,2,4-Trichlorobenzene	< 10.0	ug/L		7/2/2019 23:16
1,2-Dichlorobenzene	< 10.0	ug/L		7/2/2019 23:16
1,3-Dichlorobenzene	< 10.0	ug/L		7/2/2019 23:16
1,4-Dichlorobenzene	< 10.0	ug/L		7/2/2019 23:16
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		7/2/2019 23:16
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		7/2/2019 23:16
2,4,5-Trichlorophenol	< 20.0	ug/L		7/2/2019 23:16
2,4,6-Trichlorophenol	< 10.0	ug/L		7/2/2019 23:16
2,4-Dichlorophenol	< 10.0	ug/L		7/2/2019 23:16
2,4-Dimethylphenol	< 20.0	ug/L		7/2/2019 23:16
2,4-Dinitrophenol	< 20.0	ug/L		7/2/2019 23:16
2,4-Dinitrotoluene	< 10.0	ug/L		7/2/2019 23:16
2,6-Dinitrotoluene	< 10.0	ug/L		7/2/2019 23:16
2-Chloronaphthalene	< 10.0	ug/L		7/2/2019 23:16
2-Chlorophenol	< 10.0	ug/L		7/2/2019 23:16
2-Methylnapthalene	< 10.0	ug/L		7/2/2019 23:16
2-Methylphenol	< 10.0	ug/L		7/2/2019 23:16
2-Nitroaniline	< 20.0	ug/L		7/2/2019 23:16
2-Nitrophenol	< 10.0	ug/L		7/2/2019 23:16
3&4-Methylphenol	< 10.0	ug/L		7/2/2019 23:16
3,3'-Dichlorobenzidine	< 10.0	ug/L		7/2/2019 23:16
3-Nitroaniline	< 20.0	ug/L		7/2/2019 23:16
4,6-Dinitro-2-methylphenol	< 20.0	ug/L		7/2/2019 23:16
4-Bromophenyl phenyl ether	< 10.0	ug/L		7/2/2019 23:16
4-Chloro-3-methylphenol	< 10.0	ug/L		7/2/2019 23:16

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MW-106			
Lab Sample ID:	192983-05		Date Sampled:	6/27/2019
Matrix:	Groundwater		Date Received:	6/27/2019
4-Chloroaniline	< 10.0	ug/L	7/2/2019	23:16
4-Chlorophenyl phenyl ether	< 10.0	ug/L	7/2/2019	23:16
4-Nitroaniline	< 20.0	ug/L	7/2/2019	23:16
4-Nitrophenol	< 20.0	ug/L	7/2/2019	23:16
Acenaphthene	< 10.0	ug/L	7/2/2019	23:16
Acenaphthylene	< 10.0	ug/L	7/2/2019	23:16
Acetophenone	< 10.0	ug/L	7/2/2019	23:16
Anthracene	< 10.0	ug/L	7/2/2019	23:16
Atrazine	< 10.0	ug/L	7/2/2019	23:16
Benzaldehyde	< 10.0	ug/L	7/2/2019	23:16
Benzo (a) anthracene	< 10.0	ug/L	7/2/2019	23:16
Benzo (a) pyrene	< 10.0	ug/L	7/2/2019	23:16
Benzo (b) fluoranthene	< 10.0	ug/L	7/2/2019	23:16
Benzo (g,h,i) perylene	< 10.0	ug/L	7/2/2019	23:16
Benzo (k) fluoranthene	< 10.0	ug/L	7/2/2019	23:16
Bis (2-chloroethoxy) methane	< 10.0	ug/L	7/2/2019	23:16
Bis (2-chloroethyl) ether	< 10.0	ug/L	7/2/2019	23:16
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	7/2/2019	23:16
Butylbenzylphthalate	< 10.0	ug/L	7/2/2019	23:16
Caprolactam	< 10.0	ug/L	7/2/2019	23:16
Carbazole	< 10.0	ug/L	7/2/2019	23:16
Chrysene	< 10.0	ug/L	7/2/2019	23:16
Dibenz (a,h) anthracene	< 10.0	ug/L	7/2/2019	23:16
Dibenzofuran	< 10.0	ug/L	7/2/2019	23:16
Diethyl phthalate	< 10.0	ug/L	7/2/2019	23:16
Dimethyl phthalate	< 20.0	ug/L	7/2/2019	23:16
Di-n-butyl phthalate	< 10.0	ug/L	7/2/2019	23:16
Di-n-octylphthalate	< 10.0	ug/L	7/2/2019	23:16
Fluoranthene	< 10.0	ug/L	7/2/2019	23:16
Fluorene	< 10.0	ug/L	7/2/2019	23:16

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MW-106				
Lab Sample ID:	192983-05			Date Sampled:	6/27/2019
Matrix:	Groundwater			Date Received:	6/27/2019
Hexachlorobenzene	< 10.0	ug/L		7/2/2019	23:16
Hexachlorobutadiene	< 10.0	ug/L		7/2/2019	23:16
Hexachlorocyclopentadiene	< 10.0	ug/L		7/2/2019	23:16
Hexachloroethane	< 10.0	ug/L		7/2/2019	23:16
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L		7/2/2019	23:16
Isophorone	< 10.0	ug/L		7/2/2019	23:16
Naphthalene	< 10.0	ug/L		7/2/2019	23:16
Nitrobenzene	< 10.0	ug/L		7/2/2019	23:16
N-Nitroso-di-n-propylamine	< 10.0	ug/L		7/2/2019	23:16
N-Nitrosodiphenylamine	< 10.0	ug/L		7/2/2019	23:16
Pentachlorophenol	< 20.0	ug/L		7/2/2019	23:16
Phenanthrene	< 10.0	ug/L		7/2/2019	23:16
Phenol	< 10.0	ug/L		7/2/2019	23:16
Pyrene	< 10.0	ug/L		7/2/2019	23:16
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	85.1	54.2 - 126		7/2/2019	23:16
2-Fluorobiphenyl	49.0	37.6 - 102		7/2/2019	23:16
2-Fluorophenol	38.2	15.1 - 106		7/2/2019	23:16
Nitrobenzene-d5	73.6	53.3 - 103		7/2/2019	23:16
Phenol-d5	32.4	10 - 108		7/2/2019	23:16
Terphenyl-d14	87.5	61.8 - 114		7/2/2019	23:16

Method Reference(s): EPA 8270D  
EPA 3510C  
Preparation Date: 7/1/2019  
Data File: B38353.D

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MW-106

Lab Sample ID: 192983-05

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		7/10/2019 16:53
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		7/10/2019 16:53
1,1,2-Trichloroethane	< 2.00	ug/L		7/10/2019 16:53
1,1-Dichloroethane	< 2.00	ug/L		7/10/2019 16:53
1,1-Dichloroethene	< 2.00	ug/L		7/10/2019 16:53
1,2,3-Trichlorobenzene	< 5.00	ug/L		7/10/2019 16:53
1,2,4-Trichlorobenzene	< 5.00	ug/L		7/10/2019 16:53
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		7/10/2019 16:53
1,2-Dibromoethane	< 2.00	ug/L		7/10/2019 16:53
1,2-Dichlorobenzene	< 2.00	ug/L		7/10/2019 16:53
1,2-Dichloroethane	< 2.00	ug/L		7/10/2019 16:53
1,2-Dichloropropane	< 2.00	ug/L		7/10/2019 16:53
1,3-Dichlorobenzene	< 2.00	ug/L		7/10/2019 16:53
1,4-Dichlorobenzene	< 2.00	ug/L		7/10/2019 16:53
1,4-Dioxane	< 20.0	ug/L		7/10/2019 16:53
2-Butanone	< 10.0	ug/L		7/10/2019 16:53
2-Hexanone	< 5.00	ug/L		7/10/2019 16:53
4-Methyl-2-pentanone	< 5.00	ug/L		7/10/2019 16:53
Acetone	< 10.0	ug/L		7/10/2019 16:53
Benzene	< 1.00	ug/L		7/10/2019 16:53
Bromochloromethane	< 5.00	ug/L		7/10/2019 16:53
Bromodichloromethane	< 2.00	ug/L		7/10/2019 16:53
Bromoform	< 5.00	ug/L		7/10/2019 16:53
Bromomethane	< 2.00	ug/L		7/10/2019 16:53
Carbon disulfide	< 2.00	ug/L		7/10/2019 16:53
Carbon Tetrachloride	< 2.00	ug/L		7/10/2019 16:53
Chlorobenzene	<b>1.88</b>	ug/L	J	7/10/2019 16:53

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MW-106			
Lab Sample ID:	192983-05		Date Sampled:	6/27/2019
Matrix:	Groundwater		Date Received:	6/27/2019
Chloroethane	< 2.00	ug/L	7/10/2019	16:53
Chloroform	< 2.00	ug/L	7/10/2019	16:53
Chloromethane	< 2.00	ug/L	7/10/2019	16:53
cis-1,2-Dichloroethene	< 2.00	ug/L	7/10/2019	16:53
cis-1,3-Dichloropropene	< 2.00	ug/L	7/10/2019	16:53
Cyclohexane	< 10.0	ug/L	7/10/2019	16:53
Dibromochloromethane	< 2.00	ug/L	7/10/2019	16:53
Dichlorodifluoromethane	< 2.00	ug/L	7/10/2019	16:53
Ethylbenzene	< 2.00	ug/L	7/10/2019	16:53
Freon 113	< 2.00	ug/L	7/10/2019	16:53
Isopropylbenzene	< 2.00	ug/L	7/10/2019	16:53
m,p-Xylene	< 2.00	ug/L	7/10/2019	16:53
Methyl acetate	< 2.00	ug/L	7/10/2019	16:53
Methyl tert-butyl Ether	< 2.00	ug/L	7/10/2019	16:53
Methylcyclohexane	< 2.00	ug/L	7/10/2019	16:53
Methylene chloride	< 5.00	ug/L	7/10/2019	16:53
o-Xylene	< 2.00	ug/L	7/10/2019	16:53
Styrene	< 5.00	ug/L	7/10/2019	16:53
Tetrachloroethene	< 2.00	ug/L	7/10/2019	16:53
Toluene	< 2.00	ug/L	7/10/2019	16:53
trans-1,2-Dichloroethene	< 2.00	ug/L	7/10/2019	16:53
trans-1,3-Dichloropropene	< 2.00	ug/L	7/10/2019	16:53
Trichloroethene	< 2.00	ug/L	7/10/2019	16:53
Trichlorofluoromethane	< 2.00	ug/L	7/10/2019	16:53
Vinyl chloride	< 2.00	ug/L	7/10/2019	16:53

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Report Prepared Monday, July 15, 2019



**Lab Project ID:** 192983

**Client:** **Bergmann Associates**

**Project Reference:** VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

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**Sample Identifier:** MW-106

**Lab Sample ID:** 192983-05

**Date Sampled:** 6/27/2019

**Matrix:** Groundwater

**Date Received:** 6/27/2019

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<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>127</b>	73.4 - 131		7/10/2019 16:53
4-Bromofluorobenzene	<b>91.1</b>	57.2 - 129		7/10/2019 16:53
Pentafluorobenzene	<b>87.0</b>	87 - 112		7/10/2019 16:53
Toluene-D8	<b>95.2</b>	78.3 - 115		7/10/2019 16:53

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:** x62499.D

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*Report Prepared Monday, July 15, 2019*



**Lab Project ID:** 192983

**Client:** **Bergmann Associates**

**Project Reference:** VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

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**Sample Identifier:** MW-102

**Lab Sample ID:** 192983-06

**Date Sampled:** 6/27/2019

**Matrix:** Groundwater

**Date Received:** 6/27/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		7/9/2019 10:17

**Method Reference(s):** EPA 7470A

**Preparation Date:** 7/8/2019

**Data File:** Hg190709A

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*Report Prepared Monday, July 15, 2019*



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MW-102

Lab Sample ID: 192983-06

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	0.454	mg/L		7/1/2019 15:21
Antimony	< 0.0600	mg/L		7/1/2019 15:21
Arsenic	0.0135	mg/L		7/3/2019 16:52
Barium	0.925	mg/L		7/1/2019 15:21
Beryllium	< 0.00500	mg/L		7/1/2019 15:21
Cadmium	< 0.00500	mg/L		7/1/2019 15:21
Calcium	585	mg/L		7/3/2019 16:47
Chromium	< 0.0100	mg/L		7/1/2019 15:21
Cobalt	< 0.0500	mg/L		7/1/2019 15:21
Copper	< 0.0400	mg/L		7/1/2019 15:21
Iron	46.9	mg/L		7/1/2019 15:21
Lead	< 0.0100	mg/L		7/1/2019 15:21
Magnesium	198	mg/L		7/1/2019 15:21
Manganese	2.07	mg/L		7/1/2019 15:21
Nickel	< 0.0400	mg/L		7/1/2019 15:21
Potassium	52.6	mg/L		7/1/2019 15:21
Selenium	0.0188	mg/L	J	7/8/2019 16:32
Silver	< 0.0100	mg/L		7/1/2019 15:21
Sodium	1660	mg/L	E	7/3/2019 16:47
Thallium	0.0218	mg/L	J	7/1/2019 15:21
Vanadium	< 0.0250	mg/L		7/1/2019 15:21
Zinc	0.0610	mg/L		7/1/2019 15:21

Method Reference(s): EPA 6010C  
EPA 3005A  
Preparation Date: 6/28/2019  
Data File: 19070C

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MW-102

Lab Sample ID: 192983-06

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		7/2/2019 23:45
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		7/2/2019 23:45
1,2,4-Trichlorobenzene	< 10.0	ug/L		7/2/2019 23:45
1,2-Dichlorobenzene	< 10.0	ug/L		7/2/2019 23:45
1,3-Dichlorobenzene	< 10.0	ug/L		7/2/2019 23:45
1,4-Dichlorobenzene	< 10.0	ug/L		7/2/2019 23:45
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		7/2/2019 23:45
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		7/2/2019 23:45
2,4,5-Trichlorophenol	< 20.0	ug/L		7/2/2019 23:45
2,4,6-Trichlorophenol	< 10.0	ug/L		7/2/2019 23:45
2,4-Dichlorophenol	< 10.0	ug/L		7/2/2019 23:45
2,4-Dimethylphenol	< 20.0	ug/L		7/2/2019 23:45
2,4-Dinitrophenol	< 20.0	ug/L		7/2/2019 23:45
2,4-Dinitrotoluene	< 10.0	ug/L		7/2/2019 23:45
2,6-Dinitrotoluene	< 10.0	ug/L		7/2/2019 23:45
2-Chloronaphthalene	< 10.0	ug/L		7/2/2019 23:45
2-Chlorophenol	< 10.0	ug/L		7/2/2019 23:45
2-Methylnapthalene	< 10.0	ug/L		7/2/2019 23:45
2-Methylphenol	< 10.0	ug/L		7/2/2019 23:45
2-Nitroaniline	< 20.0	ug/L		7/2/2019 23:45
2-Nitrophenol	< 10.0	ug/L		7/2/2019 23:45
3&4-Methylphenol	< 10.0	ug/L		7/2/2019 23:45
3,3'-Dichlorobenzidine	< 10.0	ug/L		7/2/2019 23:45
3-Nitroaniline	< 20.0	ug/L		7/2/2019 23:45
4,6-Dinitro-2-methylphenol	< 20.0	ug/L		7/2/2019 23:45
4-Bromophenyl phenyl ether	< 10.0	ug/L		7/2/2019 23:45
4-Chloro-3-methylphenol	< 10.0	ug/L		7/2/2019 23:45

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MW-102			
Lab Sample ID:	192983-06		Date Sampled:	6/27/2019
Matrix:	Groundwater		Date Received:	6/27/2019
4-Chloroaniline	< 10.0	ug/L	7/2/2019	23:45
4-Chlorophenyl phenyl ether	< 10.0	ug/L	7/2/2019	23:45
4-Nitroaniline	< 20.0	ug/L	7/2/2019	23:45
4-Nitrophenol	< 20.0	ug/L	7/2/2019	23:45
Acenaphthene	< 10.0	ug/L	7/2/2019	23:45
Acenaphthylene	< 10.0	ug/L	7/2/2019	23:45
Acetophenone	< 10.0	ug/L	7/2/2019	23:45
Anthracene	< 10.0	ug/L	7/2/2019	23:45
Atrazine	< 10.0	ug/L	7/2/2019	23:45
Benzaldehyde	< 10.0	ug/L	7/2/2019	23:45
Benzo (a) anthracene	< 10.0	ug/L	7/2/2019	23:45
Benzo (a) pyrene	< 10.0	ug/L	7/2/2019	23:45
Benzo (b) fluoranthene	< 10.0	ug/L	7/2/2019	23:45
Benzo (g,h,i) perylene	< 10.0	ug/L	7/2/2019	23:45
Benzo (k) fluoranthene	< 10.0	ug/L	7/2/2019	23:45
Bis (2-chloroethoxy) methane	< 10.0	ug/L	7/2/2019	23:45
Bis (2-chloroethyl) ether	< 10.0	ug/L	7/2/2019	23:45
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	7/2/2019	23:45
Butylbenzylphthalate	< 10.0	ug/L	7/2/2019	23:45
Caprolactam	< 10.0	ug/L	7/2/2019	23:45
Carbazole	< 10.0	ug/L	7/2/2019	23:45
Chrysene	< 10.0	ug/L	7/2/2019	23:45
Dibenz (a,h) anthracene	< 10.0	ug/L	7/2/2019	23:45
Dibenzofuran	< 10.0	ug/L	7/2/2019	23:45
Diethyl phthalate	< 10.0	ug/L	7/2/2019	23:45
Dimethyl phthalate	< 20.0	ug/L	7/2/2019	23:45
Di-n-butyl phthalate	< 10.0	ug/L	7/2/2019	23:45
Di-n-octylphthalate	< 10.0	ug/L	7/2/2019	23:45
Fluoranthene	< 10.0	ug/L	7/2/2019	23:45
Fluorene	< 10.0	ug/L	7/2/2019	23:45

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MW-102				
Lab Sample ID:	192983-06			Date Sampled:	6/27/2019
Matrix:	Groundwater			Date Received:	6/27/2019
Hexachlorobenzene	< 10.0	ug/L		7/2/2019	23:45
Hexachlorobutadiene	< 10.0	ug/L		7/2/2019	23:45
Hexachlorocyclopentadiene	< 10.0	ug/L		7/2/2019	23:45
Hexachloroethane	< 10.0	ug/L		7/2/2019	23:45
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L		7/2/2019	23:45
Isophorone	< 10.0	ug/L		7/2/2019	23:45
Naphthalene	< 10.0	ug/L		7/2/2019	23:45
Nitrobenzene	< 10.0	ug/L		7/2/2019	23:45
N-Nitroso-di-n-propylamine	< 10.0	ug/L		7/2/2019	23:45
N-Nitrosodiphenylamine	< 10.0	ug/L		7/2/2019	23:45
Pentachlorophenol	< 20.0	ug/L		7/2/2019	23:45
Phenanthrene	< 10.0	ug/L		7/2/2019	23:45
Phenol	< 10.0	ug/L		7/2/2019	23:45
Pyrene	< 10.0	ug/L		7/2/2019	23:45
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	79.7	54.2 - 126		7/2/2019	23:45
2-Fluorobiphenyl	47.1	37.6 - 102		7/2/2019	23:45
2-Fluorophenol	39.6	15.1 - 106		7/2/2019	23:45
Nitrobenzene-d5	75.2	53.3 - 103		7/2/2019	23:45
Phenol-d5	31.1	10 - 108		7/2/2019	23:45
Terphenyl-d14	84.3	61.8 - 114		7/2/2019	23:45

Method Reference(s): EPA 8270D  
EPA 3510C  
Preparation Date: 7/1/2019  
Data File: B38354.D

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MW-102

Lab Sample ID: 192983-06

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		7/10/2019 17:16
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		7/10/2019 17:16
1,1,2-Trichloroethane	< 2.00	ug/L		7/10/2019 17:16
1,1-Dichloroethane	< 2.00	ug/L		7/10/2019 17:16
1,1-Dichloroethene	< 2.00	ug/L		7/10/2019 17:16
1,2,3-Trichlorobenzene	< 5.00	ug/L		7/10/2019 17:16
1,2,4-Trichlorobenzene	< 5.00	ug/L		7/10/2019 17:16
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		7/10/2019 17:16
1,2-Dibromoethane	< 2.00	ug/L		7/10/2019 17:16
1,2-Dichlorobenzene	< 2.00	ug/L		7/10/2019 17:16
1,2-Dichloroethane	< 2.00	ug/L		7/10/2019 17:16
1,2-Dichloropropane	< 2.00	ug/L		7/10/2019 17:16
1,3-Dichlorobenzene	< 2.00	ug/L		7/10/2019 17:16
1,4-Dichlorobenzene	< 2.00	ug/L		7/10/2019 17:16
1,4-Dioxane	< 20.0	ug/L		7/10/2019 17:16
2-Butanone	< 10.0	ug/L		7/10/2019 17:16
2-Hexanone	< 5.00	ug/L		7/10/2019 17:16
4-Methyl-2-pentanone	< 5.00	ug/L		7/10/2019 17:16
Acetone	< 10.0	ug/L		7/10/2019 17:16
Benzene	< 1.00	ug/L		7/10/2019 17:16
Bromochloromethane	< 5.00	ug/L		7/10/2019 17:16
Bromodichloromethane	< 2.00	ug/L		7/10/2019 17:16
Bromoform	< 5.00	ug/L		7/10/2019 17:16
Bromomethane	< 2.00	ug/L		7/10/2019 17:16
Carbon disulfide	< 2.00	ug/L		7/10/2019 17:16
Carbon Tetrachloride	< 2.00	ug/L		7/10/2019 17:16
Chlorobenzene	< 2.00	ug/L		7/10/2019 17:16

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MW-102			
Lab Sample ID:	192983-06		Date Sampled:	6/27/2019
Matrix:	Groundwater		Date Received:	6/27/2019
Chloroethane	< 2.00	ug/L	7/10/2019	17:16
Chloroform	< 2.00	ug/L	7/10/2019	17:16
Chloromethane	< 2.00	ug/L	7/10/2019	17:16
cis-1,2-Dichloroethene	< 2.00	ug/L	7/10/2019	17:16
cis-1,3-Dichloropropene	< 2.00	ug/L	7/10/2019	17:16
Cyclohexane	< 10.0	ug/L	7/10/2019	17:16
Dibromochloromethane	< 2.00	ug/L	7/10/2019	17:16
Dichlorodifluoromethane	< 2.00	ug/L	7/10/2019	17:16
Ethylbenzene	< 2.00	ug/L	7/10/2019	17:16
Freon 113	< 2.00	ug/L	7/10/2019	17:16
Isopropylbenzene	< 2.00	ug/L	7/10/2019	17:16
m,p-Xylene	< 2.00	ug/L	7/10/2019	17:16
Methyl acetate	< 2.00	ug/L	7/10/2019	17:16
Methyl tert-butyl Ether	< 2.00	ug/L	7/10/2019	17:16
Methylcyclohexane	< 2.00	ug/L	7/10/2019	17:16
Methylene chloride	< 5.00	ug/L	7/10/2019	17:16
o-Xylene	< 2.00	ug/L	7/10/2019	17:16
Styrene	< 5.00	ug/L	7/10/2019	17:16
Tetrachloroethene	< 2.00	ug/L	7/10/2019	17:16
Toluene	< 2.00	ug/L	7/10/2019	17:16
trans-1,2-Dichloroethene	< 2.00	ug/L	7/10/2019	17:16
trans-1,3-Dichloropropene	< 2.00	ug/L	7/10/2019	17:16
Trichloroethene	< 2.00	ug/L	7/10/2019	17:16
Trichlorofluoromethane	< 2.00	ug/L	7/10/2019	17:16
Vinyl chloride	< 2.00	ug/L	7/10/2019	17:16

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Report Prepared Monday, July 15, 2019



**Lab Project ID:** 192983

**Client:** **Bergmann Associates**

**Project Reference:** VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

**Sample Identifier:** MW-102

**Lab Sample ID:** 192983-06

**Date Sampled:** 6/27/2019

**Matrix:** Groundwater

**Date Received:** 6/27/2019

<u><b>Surrogate</b></u>	<u><b>Percent Recovery</b></u>	<u><b>Limits</b></u>	<u><b>Outliers</b></u>	<u><b>Date Analyzed</b></u>	
1,2-Dichloroethane-d4	<b>143</b>	73.4 - 131	*	7/10/2019	17:16
4-Bromofluorobenzene	<b>95.5</b>	57.2 - 129		7/10/2019	17:16
Pentafluorobenzene	<b>81.7</b>	87 - 112	*	7/10/2019	17:16
Toluene-D8	<b>101</b>	78.3 - 115		7/10/2019	17:16

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:** x62500.D

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*Report Prepared Monday, July 15, 2019*



**Lab Project ID:** 192983

**Client:** **Bergmann Associates**

**Project Reference:** VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

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**Sample Identifier:** MWR-102

**Lab Sample ID:** 192983-07

**Date Sampled:** 6/27/2019

**Matrix:** Groundwater

**Date Received:** 6/27/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		7/9/2019 10:19

**Method Reference(s):** EPA 7470A

**Preparation Date:** 7/8/2019

**Data File:** Hg190709A

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*Report Prepared Monday, July 15, 2019*



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MWR-102

Lab Sample ID: 192983-07

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	< 0.100	mg/L		7/1/2019 15:26
Antimony	< 0.0600	mg/L		7/1/2019 15:26
Arsenic	< 0.0100	mg/L		7/3/2019 16:56
Barium	<b>0.0733</b>	mg/L	J	7/1/2019 15:26
Beryllium	< 0.00500	mg/L		7/1/2019 15:26
Cadmium	< 0.00500	mg/L		7/1/2019 15:26
Calcium	<b>102</b>	mg/L		7/1/2019 15:26
Chromium	< 0.0100	mg/L		7/1/2019 15:26
Cobalt	< 0.0500	mg/L		7/1/2019 15:26
Copper	< 0.0400	mg/L		7/1/2019 15:26
Iron	< 0.100	mg/L		7/1/2019 15:26
Lead	< 0.0100	mg/L		7/1/2019 15:26
Magnesium	<b>67.3</b>	mg/L		7/1/2019 15:26
Manganese	<b>0.129</b>	mg/L		7/1/2019 15:26
Nickel	< 0.0400	mg/L		7/1/2019 15:26
Potassium	<b>11.0</b>	mg/L		7/1/2019 15:26
Selenium	< 0.0200	mg/L		7/8/2019 16:37
Silver	< 0.0100	mg/L		7/1/2019 15:26
Sodium	<b>308</b>	mg/L		7/1/2019 15:26
Thallium	< 0.0250	mg/L		7/1/2019 15:26
Vanadium	< 0.0250	mg/L		7/1/2019 15:26
Zinc	< 0.0600	mg/L		7/1/2019 15:26

Method Reference(s): EPA 6010C  
EPA 3005A  
Preparation Date: 6/28/2019  
Data File: 19070C

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MWR-102

Lab Sample ID: 192983-07

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		7/3/2019 00:14
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		7/3/2019 00:14
1,2,4-Trichlorobenzene	< 10.0	ug/L		7/3/2019 00:14
1,2-Dichlorobenzene	< 10.0	ug/L		7/3/2019 00:14
1,3-Dichlorobenzene	< 10.0	ug/L		7/3/2019 00:14
1,4-Dichlorobenzene	< 10.0	ug/L		7/3/2019 00:14
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		7/3/2019 00:14
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		7/3/2019 00:14
2,4,5-Trichlorophenol	< 20.0	ug/L		7/3/2019 00:14
2,4,6-Trichlorophenol	< 10.0	ug/L		7/3/2019 00:14
2,4-Dichlorophenol	< 10.0	ug/L		7/3/2019 00:14
2,4-Dimethylphenol	< 20.0	ug/L		7/3/2019 00:14
2,4-Dinitrophenol	< 20.0	ug/L		7/3/2019 00:14
2,4-Dinitrotoluene	< 10.0	ug/L		7/3/2019 00:14
2,6-Dinitrotoluene	< 10.0	ug/L		7/3/2019 00:14
2-Chloronaphthalene	< 10.0	ug/L		7/3/2019 00:14
2-Chlorophenol	< 10.0	ug/L		7/3/2019 00:14
2-Methylnapthalene	< 10.0	ug/L		7/3/2019 00:14
2-Methylphenol	< 10.0	ug/L		7/3/2019 00:14
2-Nitroaniline	< 20.0	ug/L		7/3/2019 00:14
2-Nitrophenol	< 10.0	ug/L		7/3/2019 00:14
3&4-Methylphenol	< 10.0	ug/L		7/3/2019 00:14
3,3'-Dichlorobenzidine	< 10.0	ug/L		7/3/2019 00:14
3-Nitroaniline	< 20.0	ug/L		7/3/2019 00:14
4,6-Dinitro-2-methylphenol	< 20.0	ug/L		7/3/2019 00:14
4-Bromophenyl phenyl ether	< 10.0	ug/L		7/3/2019 00:14
4-Chloro-3-methylphenol	< 10.0	ug/L		7/3/2019 00:14

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MWR-102			
Lab Sample ID:	192983-07		Date Sampled:	6/27/2019
Matrix:	Groundwater		Date Received:	6/27/2019
4-Chloroaniline	< 10.0	ug/L	7/3/2019	00:14
4-Chlorophenyl phenyl ether	< 10.0	ug/L	7/3/2019	00:14
4-Nitroaniline	< 20.0	ug/L	7/3/2019	00:14
4-Nitrophenol	< 20.0	ug/L	7/3/2019	00:14
Acenaphthene	< 10.0	ug/L	7/3/2019	00:14
Acenaphthylene	< 10.0	ug/L	7/3/2019	00:14
Acetophenone	< 10.0	ug/L	7/3/2019	00:14
Anthracene	< 10.0	ug/L	7/3/2019	00:14
Atrazine	< 10.0	ug/L	7/3/2019	00:14
Benzaldehyde	< 10.0	ug/L	7/3/2019	00:14
Benzo (a) anthracene	< 10.0	ug/L	7/3/2019	00:14
Benzo (a) pyrene	< 10.0	ug/L	7/3/2019	00:14
Benzo (b) fluoranthene	< 10.0	ug/L	7/3/2019	00:14
Benzo (g,h,i) perylene	< 10.0	ug/L	7/3/2019	00:14
Benzo (k) fluoranthene	< 10.0	ug/L	7/3/2019	00:14
Bis (2-chloroethoxy) methane	< 10.0	ug/L	7/3/2019	00:14
Bis (2-chloroethyl) ether	< 10.0	ug/L	7/3/2019	00:14
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	7/3/2019	00:14
Butylbenzylphthalate	< 10.0	ug/L	7/3/2019	00:14
Caprolactam	< 10.0	ug/L	7/3/2019	00:14
Carbazole	< 10.0	ug/L	7/3/2019	00:14
Chrysene	< 10.0	ug/L	7/3/2019	00:14
Dibenz (a,h) anthracene	< 10.0	ug/L	7/3/2019	00:14
Dibenzofuran	< 10.0	ug/L	7/3/2019	00:14
Diethyl phthalate	< 10.0	ug/L	7/3/2019	00:14
Dimethyl phthalate	< 20.0	ug/L	7/3/2019	00:14
Di-n-butyl phthalate	< 10.0	ug/L	7/3/2019	00:14
Di-n-octylphthalate	< 10.0	ug/L	7/3/2019	00:14
Fluoranthene	< 10.0	ug/L	7/3/2019	00:14
Fluorene	< 10.0	ug/L	7/3/2019	00:14

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MWR-102				
Lab Sample ID:	192983-07			Date Sampled:	6/27/2019
Matrix:	Groundwater			Date Received:	6/27/2019
Hexachlorobenzene	< 10.0	ug/L		7/3/2019	00:14
Hexachlorobutadiene	< 10.0	ug/L		7/3/2019	00:14
Hexachlorocyclopentadiene	< 10.0	ug/L		7/3/2019	00:14
Hexachloroethane	< 10.0	ug/L		7/3/2019	00:14
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L		7/3/2019	00:14
Isophorone	< 10.0	ug/L		7/3/2019	00:14
Naphthalene	< 10.0	ug/L		7/3/2019	00:14
Nitrobenzene	< 10.0	ug/L		7/3/2019	00:14
N-Nitroso-di-n-propylamine	< 10.0	ug/L		7/3/2019	00:14
N-Nitrosodiphenylamine	< 10.0	ug/L		7/3/2019	00:14
Pentachlorophenol	< 20.0	ug/L		7/3/2019	00:14
Phenanthrene	< 10.0	ug/L		7/3/2019	00:14
Phenol	< 10.0	ug/L		7/3/2019	00:14
Pyrene	< 10.0	ug/L		7/3/2019	00:14
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	87.3	54.2 - 126		7/3/2019	00:14
2-Fluorobiphenyl	44.7	37.6 - 102		7/3/2019	00:14
2-Fluorophenol	49.4	15.1 - 106		7/3/2019	00:14
Nitrobenzene-d5	79.3	53.3 - 103		7/3/2019	00:14
Phenol-d5	36.1	10 - 108		7/3/2019	00:14
Terphenyl-d14	95.9	61.8 - 114		7/3/2019	00:14

Method Reference(s): EPA 8270D  
EPA 3510C  
Preparation Date: 7/1/2019  
Data File: B38355.D

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MWR-102

Lab Sample ID: 192983-07

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		7/10/2019 17:38
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		7/10/2019 17:38
1,1,2-Trichloroethane	< 2.00	ug/L		7/10/2019 17:38
1,1-Dichloroethane	< 2.00	ug/L		7/10/2019 17:38
1,1-Dichloroethene	< 2.00	ug/L		7/10/2019 17:38
1,2,3-Trichlorobenzene	< 5.00	ug/L		7/10/2019 17:38
1,2,4-Trichlorobenzene	< 5.00	ug/L		7/10/2019 17:38
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		7/10/2019 17:38
1,2-Dibromoethane	< 2.00	ug/L		7/10/2019 17:38
1,2-Dichlorobenzene	< 2.00	ug/L		7/10/2019 17:38
1,2-Dichloroethane	< 2.00	ug/L		7/10/2019 17:38
1,2-Dichloropropane	< 2.00	ug/L		7/10/2019 17:38
1,3-Dichlorobenzene	< 2.00	ug/L		7/10/2019 17:38
1,4-Dichlorobenzene	< 2.00	ug/L		7/10/2019 17:38
1,4-Dioxane	< 20.0	ug/L		7/10/2019 17:38
2-Butanone	< 10.0	ug/L		7/10/2019 17:38
2-Hexanone	< 5.00	ug/L		7/10/2019 17:38
4-Methyl-2-pentanone	< 5.00	ug/L		7/10/2019 17:38
Acetone	< 10.0	ug/L		7/10/2019 17:38
Benzene	< 1.00	ug/L		7/10/2019 17:38
Bromochloromethane	< 5.00	ug/L		7/10/2019 17:38
Bromodichloromethane	< 2.00	ug/L		7/10/2019 17:38
Bromoform	< 5.00	ug/L		7/10/2019 17:38
Bromomethane	< 2.00	ug/L		7/10/2019 17:38
Carbon disulfide	< 2.00	ug/L		7/10/2019 17:38
Carbon Tetrachloride	< 2.00	ug/L		7/10/2019 17:38
Chlorobenzene	< 2.00	ug/L		7/10/2019 17:38

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MWR-102			
Lab Sample ID:	192983-07		Date Sampled:	6/27/2019
Matrix:	Groundwater		Date Received:	6/27/2019
Chloroethane	< 2.00	ug/L		7/10/2019 17:38
Chloroform	< 2.00	ug/L		7/10/2019 17:38
Chloromethane	< 2.00	ug/L		7/10/2019 17:38
cis-1,2-Dichloroethene	<b>1.01</b>	ug/L	J	7/10/2019 17:38
cis-1,3-Dichloropropene	< 2.00	ug/L		7/10/2019 17:38
Cyclohexane	< 10.0	ug/L		7/10/2019 17:38
Dibromochloromethane	< 2.00	ug/L		7/10/2019 17:38
Dichlorodifluoromethane	< 2.00	ug/L		7/10/2019 17:38
Ethylbenzene	< 2.00	ug/L		7/10/2019 17:38
Freon 113	< 2.00	ug/L		7/10/2019 17:38
Isopropylbenzene	< 2.00	ug/L		7/10/2019 17:38
m,p-Xylene	< 2.00	ug/L		7/10/2019 17:38
Methyl acetate	< 2.00	ug/L		7/10/2019 17:38
Methyl tert-butyl Ether	<b>13.7</b>	ug/L		7/10/2019 17:38
Methylcyclohexane	< 2.00	ug/L		7/10/2019 17:38
Methylene chloride	< 5.00	ug/L		7/10/2019 17:38
o-Xylene	< 2.00	ug/L		7/10/2019 17:38
Styrene	< 5.00	ug/L		7/10/2019 17:38
Tetrachloroethene	< 2.00	ug/L		7/10/2019 17:38
Toluene	< 2.00	ug/L		7/10/2019 17:38
trans-1,2-Dichloroethene	< 2.00	ug/L		7/10/2019 17:38
trans-1,3-Dichloropropene	< 2.00	ug/L		7/10/2019 17:38
Trichloroethene	< 2.00	ug/L		7/10/2019 17:38
Trichlorofluoromethane	< 2.00	ug/L		7/10/2019 17:38
Vinyl chloride	< 2.00	ug/L		7/10/2019 17:38

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Report Prepared Monday, July 15, 2019



**Lab Project ID:** 192983

**Client:** **Bergmann Associates**

**Project Reference:** VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

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**Sample Identifier:** MWR-102

**Lab Sample ID:** 192983-07

**Date Sampled:** 6/27/2019

**Matrix:** Groundwater

**Date Received:** 6/27/2019

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<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	<b>135</b>	73.4 - 131	*	7/10/2019	17:38
4-Bromofluorobenzene	<b>92.6</b>	57.2 - 129		7/10/2019	17:38
Pentafluorobenzene	<b>91.1</b>	87 - 112		7/10/2019	17:38
Toluene-D8	<b>94.1</b>	78.3 - 115		7/10/2019	17:38

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:** x62501.D

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*Report Prepared Monday, July 15, 2019*



**Lab Project ID:** 192983

**Client:** **Bergmann Associates**

**Project Reference:** VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

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**Sample Identifier:** Blind Duplicate

**Lab Sample ID:** 192983-08

**Date Sampled:** 6/27/2019

**Matrix:** Groundwater

**Date Received:** 6/27/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		7/9/2019 10:20

**Method Reference(s):** EPA 7470A

**Preparation Date:** 7/8/2019

**Data File:** Hg190709A

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*Report Prepared Monday, July 15, 2019*



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: Blind Duplicate

Lab Sample ID: 192983-08

Date Sampled: 6/27/2019

Matrix: Groundwater

Date Received: 6/27/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	< 0.100	mg/L		7/1/2019 15:30
Antimony	< 0.0600	mg/L		7/1/2019 15:30
Arsenic	< 0.0100	mg/L		7/1/2019 15:30
Barium	<b>0.0882</b>	mg/L	J	7/1/2019 15:30
Beryllium	< 0.00500	mg/L		7/1/2019 15:30
Cadmium	< 0.00500	mg/L		7/1/2019 15:30
Calcium	<b>181</b>	mg/L		7/1/2019 15:30
Chromium	< 0.0100	mg/L		7/1/2019 15:30
Cobalt	< 0.0500	mg/L		7/1/2019 15:30
Copper	< 0.0400	mg/L		7/1/2019 15:30
Iron	<b>3.61</b>	mg/L		7/1/2019 15:30
Lead	< 0.0100	mg/L		7/1/2019 15:30
Magnesium	<b>28.8</b>	mg/L		7/1/2019 15:30
Manganese	<b>0.387</b>	mg/L		7/1/2019 15:30
Nickel	< 0.0400	mg/L		7/1/2019 15:30
Potassium	<b>6.35</b>	mg/L		7/1/2019 15:30
Selenium	<b>0.0145</b>	mg/L	J	7/8/2019 16:41
Silver	< 0.0100	mg/L		7/1/2019 15:30
Sodium	<b>55.3</b>	mg/L		7/1/2019 15:30
Thallium	< 0.0250	mg/L		7/1/2019 15:30
Vanadium	< 0.0250	mg/L		7/1/2019 15:30
Zinc	< 0.0600	mg/L		7/1/2019 15:30

Method Reference(s): EPA 6010C  
EPA 3005A  
Preparation Date: 6/28/2019  
Data File: 19070C

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: Blind Duplicate

Lab Sample ID: 192983-08

Date Sampled: 6/27/2019

Matrix: Groundwater

Date Received: 6/27/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.3	ug/L		7/3/2019 00:42
1,2,4,5-Tetrachlorobenzene	< 10.3	ug/L		7/3/2019 00:42
1,2,4-Trichlorobenzene	< 10.3	ug/L		7/3/2019 00:42
1,2-Dichlorobenzene	< 10.3	ug/L		7/3/2019 00:42
1,3-Dichlorobenzene	< 10.3	ug/L		7/3/2019 00:42
1,4-Dichlorobenzene	< 10.3	ug/L		7/3/2019 00:42
2,2-Oxybis (1-chloropropane)	< 10.3	ug/L		7/3/2019 00:42
2,3,4,6-Tetrachlorophenol	< 10.3	ug/L		7/3/2019 00:42
2,4,5-Trichlorophenol	< 20.7	ug/L		7/3/2019 00:42
2,4,6-Trichlorophenol	< 10.3	ug/L		7/3/2019 00:42
2,4-Dichlorophenol	< 10.3	ug/L		7/3/2019 00:42
2,4-Dimethylphenol	< 20.7	ug/L		7/3/2019 00:42
2,4-Dinitrophenol	< 20.7	ug/L		7/3/2019 00:42
2,4-Dinitrotoluene	< 10.3	ug/L		7/3/2019 00:42
2,6-Dinitrotoluene	< 10.3	ug/L		7/3/2019 00:42
2-Chloronaphthalene	< 10.3	ug/L		7/3/2019 00:42
2-Chlorophenol	< 10.3	ug/L		7/3/2019 00:42
2-Methylnapthalene	< 10.3	ug/L		7/3/2019 00:42
2-Methylphenol	< 10.3	ug/L		7/3/2019 00:42
2-Nitroaniline	< 20.7	ug/L		7/3/2019 00:42
2-Nitrophenol	< 10.3	ug/L		7/3/2019 00:42
3&4-Methylphenol	< 10.3	ug/L		7/3/2019 00:42
3,3'-Dichlorobenzidine	< 10.3	ug/L		7/3/2019 00:42
3-Nitroaniline	< 20.7	ug/L		7/3/2019 00:42
4,6-Dinitro-2-methylphenol	< 20.7	ug/L		7/3/2019 00:42
4-Bromophenyl phenyl ether	< 10.3	ug/L		7/3/2019 00:42
4-Chloro-3-methylphenol	< 10.3	ug/L		7/3/2019 00:42

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	Blind Duplicate			
Lab Sample ID:	192983-08		Date Sampled:	6/27/2019
Matrix:	Groundwater		Date Received:	6/27/2019
4-Chloroaniline	< 10.3	ug/L	7/3/2019	00:42
4-Chlorophenyl phenyl ether	< 10.3	ug/L	7/3/2019	00:42
4-Nitroaniline	< 20.7	ug/L	7/3/2019	00:42
4-Nitrophenol	< 20.7	ug/L	7/3/2019	00:42
Acenaphthene	< 10.3	ug/L	7/3/2019	00:42
Acenaphthylene	< 10.3	ug/L	7/3/2019	00:42
Acetophenone	< 10.3	ug/L	7/3/2019	00:42
Anthracene	< 10.3	ug/L	7/3/2019	00:42
Atrazine	< 10.3	ug/L	7/3/2019	00:42
Benzaldehyde	< 10.3	ug/L	7/3/2019	00:42
Benzo (a) anthracene	< 10.3	ug/L	7/3/2019	00:42
Benzo (a) pyrene	< 10.3	ug/L	7/3/2019	00:42
Benzo (b) fluoranthene	< 10.3	ug/L	7/3/2019	00:42
Benzo (g,h,i) perylene	< 10.3	ug/L	7/3/2019	00:42
Benzo (k) fluoranthene	< 10.3	ug/L	7/3/2019	00:42
Bis (2-chloroethoxy) methane	< 10.3	ug/L	7/3/2019	00:42
Bis (2-chloroethyl) ether	< 10.3	ug/L	7/3/2019	00:42
Bis (2-ethylhexyl) phthalate	< 10.3	ug/L	7/3/2019	00:42
Butylbenzylphthalate	< 10.3	ug/L	7/3/2019	00:42
Caprolactam	< 10.3	ug/L	7/3/2019	00:42
Carbazole	< 10.3	ug/L	7/3/2019	00:42
Chrysene	< 10.3	ug/L	7/3/2019	00:42
Dibenz (a,h) anthracene	< 10.3	ug/L	7/3/2019	00:42
Dibenzofuran	< 10.3	ug/L	7/3/2019	00:42
Diethyl phthalate	< 10.3	ug/L	7/3/2019	00:42
Dimethyl phthalate	< 20.7	ug/L	7/3/2019	00:42
Di-n-butyl phthalate	< 10.3	ug/L	7/3/2019	00:42
Di-n-octylphthalate	< 10.3	ug/L	7/3/2019	00:42
Fluoranthene	< 10.3	ug/L	7/3/2019	00:42
Fluorene	< 10.3	ug/L	7/3/2019	00:42

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	Blind Duplicate			Date Sampled:	6/27/2019
Lab Sample ID:	192983-08			Date Received:	6/27/2019
Matrix:	Groundwater				
Hexachlorobenzene	< 10.3	ug/L		7/3/2019	00:42
Hexachlorobutadiene	< 10.3	ug/L		7/3/2019	00:42
Hexachlorocyclopentadiene	< 10.3	ug/L		7/3/2019	00:42
Hexachloroethane	< 10.3	ug/L		7/3/2019	00:42
Indeno (1,2,3-cd) pyrene	< 10.3	ug/L		7/3/2019	00:42
Isophorone	< 10.3	ug/L		7/3/2019	00:42
Naphthalene	< 10.3	ug/L		7/3/2019	00:42
Nitrobenzene	< 10.3	ug/L		7/3/2019	00:42
N-Nitroso-di-n-propylamine	< 10.3	ug/L		7/3/2019	00:42
N-Nitrosodiphenylamine	< 10.3	ug/L		7/3/2019	00:42
Pentachlorophenol	< 20.7	ug/L		7/3/2019	00:42
Phenanthrene	< 10.3	ug/L		7/3/2019	00:42
Phenol	< 10.3	ug/L		7/3/2019	00:42
Pyrene	< 10.3	ug/L		7/3/2019	00:42
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>88.6</b>	54.2 - 126		7/3/2019	00:42
2-Fluorobiphenyl	<b>62.1</b>	37.6 - 102		7/3/2019	00:42
2-Fluorophenol	<b>49.9</b>	15.1 - 106		7/3/2019	00:42
Nitrobenzene-d5	<b>82.1</b>	53.3 - 103		7/3/2019	00:42
Phenol-d5	<b>30.9</b>	10 - 108		7/3/2019	00:42
Terphenyl-d14	<b>82.4</b>	61.8 - 114		7/3/2019	00:42

Method Reference(s): EPA 8270D  
EPA 3510C  
Preparation Date: 7/1/2019  
Data File: B38356.D

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: Blind Duplicate

Lab Sample ID: 192983-08

Date Sampled: 6/27/2019

Matrix: Groundwater

Date Received: 6/27/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		7/10/2019 18:00
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		7/10/2019 18:00
1,1,2-Trichloroethane	< 2.00	ug/L		7/10/2019 18:00
1,1-Dichloroethane	< 2.00	ug/L		7/10/2019 18:00
1,1-Dichloroethene	< 2.00	ug/L		7/10/2019 18:00
1,2,3-Trichlorobenzene	< 5.00	ug/L		7/10/2019 18:00
1,2,4-Trichlorobenzene	< 5.00	ug/L		7/10/2019 18:00
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		7/10/2019 18:00
1,2-Dibromoethane	< 2.00	ug/L		7/10/2019 18:00
1,2-Dichlorobenzene	< 2.00	ug/L		7/10/2019 18:00
1,2-Dichloroethane	< 2.00	ug/L		7/10/2019 18:00
1,2-Dichloropropane	< 2.00	ug/L		7/10/2019 18:00
1,3-Dichlorobenzene	< 2.00	ug/L		7/10/2019 18:00
1,4-Dichlorobenzene	< 2.00	ug/L		7/10/2019 18:00
1,4-Dioxane	< 20.0	ug/L		7/10/2019 18:00
2-Butanone	< 10.0	ug/L		7/10/2019 18:00
2-Hexanone	< 5.00	ug/L		7/10/2019 18:00
4-Methyl-2-pentanone	< 5.00	ug/L		7/10/2019 18:00
Acetone	< 10.0	ug/L		7/10/2019 18:00
Benzene	< 1.00	ug/L		7/10/2019 18:00
Bromochloromethane	< 5.00	ug/L		7/10/2019 18:00
Bromodichloromethane	< 2.00	ug/L		7/10/2019 18:00
Bromoform	< 5.00	ug/L		7/10/2019 18:00
Bromomethane	< 2.00	ug/L		7/10/2019 18:00
Carbon disulfide	< 2.00	ug/L		7/10/2019 18:00
Carbon Tetrachloride	< 2.00	ug/L		7/10/2019 18:00
Chlorobenzene	< 2.00	ug/L		7/10/2019 18:00

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	Blind Duplicate			Date Sampled:	6/27/2019
Lab Sample ID:	192983-08			Date Received:	6/27/2019
Matrix:	Groundwater				
Chloroethane	< 2.00	ug/L		7/10/2019	18:00
Chloroform	< 2.00	ug/L		7/10/2019	18:00
Chloromethane	< 2.00	ug/L		7/10/2019	18:00
cis-1,2-Dichloroethene	< 2.00	ug/L		7/10/2019	18:00
cis-1,3-Dichloropropene	< 2.00	ug/L		7/10/2019	18:00
Cyclohexane	< 10.0	ug/L		7/10/2019	18:00
Dibromochloromethane	< 2.00	ug/L		7/10/2019	18:00
Dichlorodifluoromethane	< 2.00	ug/L		7/10/2019	18:00
Ethylbenzene	< 2.00	ug/L		7/10/2019	18:00
Freon 113	< 2.00	ug/L		7/10/2019	18:00
Isopropylbenzene	< 2.00	ug/L		7/10/2019	18:00
m,p-Xylene	< 2.00	ug/L		7/10/2019	18:00
Methyl acetate	< 2.00	ug/L		7/10/2019	18:00
Methyl tert-butyl Ether	< 2.00	ug/L		7/10/2019	18:00
Methylcyclohexane	< 2.00	ug/L		7/10/2019	18:00
Methylene chloride	< 5.00	ug/L		7/10/2019	18:00
o-Xylene	< 2.00	ug/L		7/10/2019	18:00
Styrene	< 5.00	ug/L		7/10/2019	18:00
Tetrachloroethene	< 2.00	ug/L		7/10/2019	18:00
Toluene	< 2.00	ug/L		7/10/2019	18:00
trans-1,2-Dichloroethene	< 2.00	ug/L		7/10/2019	18:00
trans-1,3-Dichloropropene	< 2.00	ug/L		7/10/2019	18:00
Trichloroethene	< 2.00	ug/L		7/10/2019	18:00
Trichlorofluoromethane	< 2.00	ug/L		7/10/2019	18:00
Vinyl chloride	< 2.00	ug/L		7/10/2019	18:00

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Report Prepared Monday, July 15, 2019



**Lab Project ID:** 192983

**Client:** **Bergmann Associates**

**Project Reference:** VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

**Sample Identifier:** Blind Duplicate

**Lab Sample ID:** 192983-08

**Date Sampled:** 6/27/2019

**Matrix:** Groundwater

**Date Received:** 6/27/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	<b>132</b>	73.4 - 131	*	7/10/2019	18:00
4-Bromofluorobenzene	<b>89.8</b>	57.2 - 129		7/10/2019	18:00
Pentafluorobenzene	<b>89.5</b>	87 - 112		7/10/2019	18:00
Toluene-D8	<b>98.1</b>	78.3 - 115		7/10/2019	18:00

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:** x62502.D

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*Report Prepared Monday, July 15, 2019*



**Lab Project ID:** 192983

**Client:** **Bergmann Associates**

**Project Reference:** VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

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**Sample Identifier:** MW-105

**Lab Sample ID:** 192983-09

**Date Sampled:** 6/27/2019

**Matrix:** Groundwater

**Date Received:** 6/27/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		7/9/2019 10:22

**Method Reference(s):** EPA 7470A

**Preparation Date:** 7/8/2019

**Data File:** Hg190709A

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*Report Prepared Monday, July 15, 2019*



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MW-105

Lab Sample ID: 192983-09

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	< 0.100	mg/L		7/1/2019 15:35
Antimony	< 0.0600	mg/L		7/1/2019 15:35
Arsenic	< 0.0100	mg/L		7/1/2019 15:35
Barium	< 0.100	mg/L		7/1/2019 15:35
Beryllium	< 0.00500	mg/L		7/1/2019 15:35
Cadmium	< 0.00500	mg/L		7/1/2019 15:35
Calcium	<b>106</b>	mg/L		7/1/2019 15:35
Chromium	< 0.0100	mg/L		7/1/2019 15:35
Cobalt	< 0.0500	mg/L		7/1/2019 15:35
Copper	< 0.0400	mg/L		7/1/2019 15:35
Iron	< 0.100	mg/L		7/1/2019 15:35
Lead	< 0.0100	mg/L		7/1/2019 15:35
Magnesium	<b>116</b>	mg/L		7/1/2019 15:35
Manganese	<b>0.0950</b>	mg/L		7/1/2019 15:35
Nickel	< 0.0400	mg/L		7/1/2019 15:35
Potassium	<b>9.27</b>	mg/L		7/1/2019 15:35
Selenium	<b>0.0142</b>	mg/L	J	7/8/2019 16:46
Silver	< 0.0100	mg/L		7/1/2019 15:35
Sodium	<b>88.7</b>	mg/L		7/1/2019 15:35
Thallium	< 0.0250	mg/L		7/1/2019 15:35
Vanadium	< 0.0250	mg/L		7/1/2019 15:35
Zinc	<b>0.0494</b>	mg/L	J	7/1/2019 15:35

Method Reference(s): EPA 6010C  
EPA 3005A  
Preparation Date: 6/28/2019  
Data File: 19070C

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MW-105

Lab Sample ID: 192983-09

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.2	ug/L		7/3/2019 01:11
1,2,4,5-Tetrachlorobenzene	< 10.2	ug/L		7/3/2019 01:11
1,2,4-Trichlorobenzene	< 10.2	ug/L		7/3/2019 01:11
1,2-Dichlorobenzene	< 10.2	ug/L		7/3/2019 01:11
1,3-Dichlorobenzene	< 10.2	ug/L		7/3/2019 01:11
1,4-Dichlorobenzene	< 10.2	ug/L		7/3/2019 01:11
2,2-Oxybis (1-chloropropane)	< 10.2	ug/L		7/3/2019 01:11
2,3,4,6-Tetrachlorophenol	< 10.2	ug/L		7/3/2019 01:11
2,4,5-Trichlorophenol	< 20.4	ug/L		7/3/2019 01:11
2,4,6-Trichlorophenol	< 10.2	ug/L		7/3/2019 01:11
2,4-Dichlorophenol	< 10.2	ug/L		7/3/2019 01:11
2,4-Dimethylphenol	< 20.4	ug/L		7/3/2019 01:11
2,4-Dinitrophenol	< 20.4	ug/L		7/3/2019 01:11
2,4-Dinitrotoluene	< 10.2	ug/L		7/3/2019 01:11
2,6-Dinitrotoluene	< 10.2	ug/L		7/3/2019 01:11
2-Chloronaphthalene	< 10.2	ug/L		7/3/2019 01:11
2-Chlorophenol	< 10.2	ug/L		7/3/2019 01:11
2-Methylnapthalene	< 10.2	ug/L		7/3/2019 01:11
2-Methylphenol	< 10.2	ug/L		7/3/2019 01:11
2-Nitroaniline	< 20.4	ug/L		7/3/2019 01:11
2-Nitrophenol	< 10.2	ug/L		7/3/2019 01:11
3&4-Methylphenol	< 10.2	ug/L		7/3/2019 01:11
3,3'-Dichlorobenzidine	< 10.2	ug/L		7/3/2019 01:11
3-Nitroaniline	< 20.4	ug/L		7/3/2019 01:11
4,6-Dinitro-2-methylphenol	< 20.4	ug/L		7/3/2019 01:11
4-Bromophenyl phenyl ether	< 10.2	ug/L		7/3/2019 01:11
4-Chloro-3-methylphenol	< 10.2	ug/L		7/3/2019 01:11

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MW-105				
Lab Sample ID:	192983-09			Date Sampled:	6/27/2019
Matrix:	Groundwater			Date Received:	6/27/2019
4-Chloroaniline	< 10.2	ug/L		7/3/2019	01:11
4-Chlorophenyl phenyl ether	< 10.2	ug/L		7/3/2019	01:11
4-Nitroaniline	< 20.4	ug/L		7/3/2019	01:11
4-Nitrophenol	< 20.4	ug/L		7/3/2019	01:11
Acenaphthene	< 10.2	ug/L		7/3/2019	01:11
Acenaphthylene	< 10.2	ug/L		7/3/2019	01:11
Acetophenone	< 10.2	ug/L		7/3/2019	01:11
Anthracene	< 10.2	ug/L		7/3/2019	01:11
Atrazine	< 10.2	ug/L		7/3/2019	01:11
Benzaldehyde	< 10.2	ug/L		7/3/2019	01:11
Benzo (a) anthracene	< 10.2	ug/L		7/3/2019	01:11
Benzo (a) pyrene	< 10.2	ug/L		7/3/2019	01:11
Benzo (b) fluoranthene	< 10.2	ug/L		7/3/2019	01:11
Benzo (g,h,i) perylene	< 10.2	ug/L		7/3/2019	01:11
Benzo (k) fluoranthene	< 10.2	ug/L		7/3/2019	01:11
Bis (2-chloroethoxy) methane	< 10.2	ug/L		7/3/2019	01:11
Bis (2-chloroethyl) ether	< 10.2	ug/L		7/3/2019	01:11
Bis (2-ethylhexyl) phthalate	< 10.2	ug/L		7/3/2019	01:11
Butylbenzylphthalate	< 10.2	ug/L		7/3/2019	01:11
Caprolactam	< 10.2	ug/L		7/3/2019	01:11
Carbazole	< 10.2	ug/L		7/3/2019	01:11
Chrysene	< 10.2	ug/L		7/3/2019	01:11
Dibenz (a,h) anthracene	< 10.2	ug/L		7/3/2019	01:11
Dibenzofuran	< 10.2	ug/L		7/3/2019	01:11
Diethyl phthalate	< 10.2	ug/L		7/3/2019	01:11
Dimethyl phthalate	< 20.4	ug/L		7/3/2019	01:11
Di-n-butyl phthalate	< 10.2	ug/L		7/3/2019	01:11
Di-n-octylphthalate	< 10.2	ug/L		7/3/2019	01:11
Fluoranthene	< 10.2	ug/L		7/3/2019	01:11
Fluorene	< 10.2	ug/L		7/3/2019	01:11

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MW-105				
Lab Sample ID:	192983-09		Date Sampled:	6/27/2019	
Matrix:	Groundwater		Date Received:	6/27/2019	
Hexachlorobenzene	< 10.2	ug/L		7/3/2019	01:11
Hexachlorobutadiene	< 10.2	ug/L		7/3/2019	01:11
Hexachlorocyclopentadiene	< 10.2	ug/L		7/3/2019	01:11
Hexachloroethane	< 10.2	ug/L		7/3/2019	01:11
Indeno (1,2,3-cd) pyrene	< 10.2	ug/L		7/3/2019	01:11
Isophorone	< 10.2	ug/L		7/3/2019	01:11
Naphthalene	< 10.2	ug/L		7/3/2019	01:11
Nitrobenzene	< 10.2	ug/L		7/3/2019	01:11
N-Nitroso-di-n-propylamine	< 10.2	ug/L		7/3/2019	01:11
N-Nitrosodiphenylamine	< 10.2	ug/L		7/3/2019	01:11
Pentachlorophenol	< 20.4	ug/L		7/3/2019	01:11
Phenanthrene	< 10.2	ug/L		7/3/2019	01:11
Phenol	< 10.2	ug/L		7/3/2019	01:11
Pyrene	< 10.2	ug/L		7/3/2019	01:11
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	81.3	54.2 - 126		7/3/2019	01:11
2-Fluorobiphenyl	60.7	37.6 - 102		7/3/2019	01:11
2-Fluorophenol	46.3	15.1 - 106		7/3/2019	01:11
Nitrobenzene-d5	83.8	53.3 - 103		7/3/2019	01:11
Phenol-d5	33.6	10 - 108		7/3/2019	01:11
Terphenyl-d14	88.7	61.8 - 114		7/3/2019	01:11

Method Reference(s): EPA 8270D  
EPA 3510C  
Preparation Date: 7/1/2019  
Data File: B38357.D

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Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: MW-105

Lab Sample ID: 192983-09

Matrix: Groundwater

Date Sampled: 6/27/2019

Date Received: 6/27/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		7/10/2019 18:22
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		7/10/2019 18:22
1,1,2-Trichloroethane	< 2.00	ug/L		7/10/2019 18:22
1,1-Dichloroethane	< 2.00	ug/L		7/10/2019 18:22
1,1-Dichloroethene	< 2.00	ug/L		7/10/2019 18:22
1,2,3-Trichlorobenzene	< 5.00	ug/L		7/10/2019 18:22
1,2,4-Trichlorobenzene	< 5.00	ug/L		7/10/2019 18:22
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		7/10/2019 18:22
1,2-Dibromoethane	< 2.00	ug/L		7/10/2019 18:22
1,2-Dichlorobenzene	< 2.00	ug/L		7/10/2019 18:22
1,2-Dichloroethane	< 2.00	ug/L		7/10/2019 18:22
1,2-Dichloropropane	< 2.00	ug/L		7/10/2019 18:22
1,3-Dichlorobenzene	< 2.00	ug/L		7/10/2019 18:22
1,4-Dichlorobenzene	< 2.00	ug/L		7/10/2019 18:22
1,4-Dioxane	< 20.0	ug/L		7/10/2019 18:22
2-Butanone	< 10.0	ug/L		7/10/2019 18:22
2-Hexanone	< 5.00	ug/L		7/10/2019 18:22
4-Methyl-2-pentanone	< 5.00	ug/L		7/10/2019 18:22
Acetone	< 10.0	ug/L		7/10/2019 18:22
Benzene	< 1.00	ug/L		7/10/2019 18:22
Bromochloromethane	< 5.00	ug/L		7/10/2019 18:22
Bromodichloromethane	< 2.00	ug/L		7/10/2019 18:22
Bromoform	< 5.00	ug/L		7/10/2019 18:22
Bromomethane	< 2.00	ug/L		7/10/2019 18:22
Carbon disulfide	< 2.00	ug/L		7/10/2019 18:22
Carbon Tetrachloride	< 2.00	ug/L		7/10/2019 18:22
Chlorobenzene	< 2.00	ug/L		7/10/2019 18:22

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	MW-105			
Lab Sample ID:	192983-09		Date Sampled:	6/27/2019
Matrix:	Groundwater		Date Received:	6/27/2019
Chloroethane	< 2.00	ug/L	7/10/2019	18:22
Chloroform	< 2.00	ug/L	7/10/2019	18:22
Chloromethane	< 2.00	ug/L	7/10/2019	18:22
cis-1,2-Dichloroethene	< 2.00	ug/L	7/10/2019	18:22
cis-1,3-Dichloropropene	< 2.00	ug/L	7/10/2019	18:22
Cyclohexane	< 10.0	ug/L	7/10/2019	18:22
Dibromochloromethane	< 2.00	ug/L	7/10/2019	18:22
Dichlorodifluoromethane	< 2.00	ug/L	7/10/2019	18:22
Ethylbenzene	< 2.00	ug/L	7/10/2019	18:22
Freon 113	< 2.00	ug/L	7/10/2019	18:22
Isopropylbenzene	< 2.00	ug/L	7/10/2019	18:22
m,p-Xylene	< 2.00	ug/L	7/10/2019	18:22
Methyl acetate	< 2.00	ug/L	7/10/2019	18:22
Methyl tert-butyl Ether	< 2.00	ug/L	7/10/2019	18:22
Methylcyclohexane	< 2.00	ug/L	7/10/2019	18:22
Methylene chloride	< 5.00	ug/L	7/10/2019	18:22
o-Xylene	< 2.00	ug/L	7/10/2019	18:22
Styrene	< 5.00	ug/L	7/10/2019	18:22
Tetrachloroethene	< 2.00	ug/L	7/10/2019	18:22
Toluene	< 2.00	ug/L	7/10/2019	18:22
trans-1,2-Dichloroethene	< 2.00	ug/L	7/10/2019	18:22
trans-1,3-Dichloropropene	< 2.00	ug/L	7/10/2019	18:22
Trichloroethene	< 2.00	ug/L	7/10/2019	18:22
Trichlorofluoromethane	< 2.00	ug/L	7/10/2019	18:22
Vinyl chloride	< 2.00	ug/L	7/10/2019	18:22

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Report Prepared Monday, July 15, 2019



**Lab Project ID:** 192983

**Client:** **Bergmann Associates**

**Project Reference:** VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

**Sample Identifier:** MW-105

**Lab Sample ID:** 192983-09

**Date Sampled:** 6/27/2019

**Matrix:** Groundwater

**Date Received:** 6/27/2019

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	<b>134</b>	73.4 - 131	*	7/10/2019	18:22
4-Bromofluorobenzene	<b>93.5</b>	57.2 - 129		7/10/2019	18:22
Pentafluorobenzene	<b>85.2</b>	87 - 112	*	7/10/2019	18:22
Toluene-D8	<b>92.7</b>	78.3 - 115		7/10/2019	18:22

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:** x62503.D

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*Report Prepared Monday, July 15, 2019*



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier: Trip Blank T934

Lab Sample ID: 192983-10

Date Sampled: 6/26/2019

Matrix: Water

Date Received: 6/27/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		7/10/2019 15:00
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		7/10/2019 15:00
1,1,2-Trichloroethane	< 2.00	ug/L		7/10/2019 15:00
1,1-Dichloroethane	< 2.00	ug/L		7/10/2019 15:00
1,1-Dichloroethene	< 2.00	ug/L		7/10/2019 15:00
1,2,3-Trichlorobenzene	< 5.00	ug/L		7/10/2019 15:00
1,2,4-Trichlorobenzene	< 5.00	ug/L		7/10/2019 15:00
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		7/10/2019 15:00
1,2-Dibromoethane	< 2.00	ug/L		7/10/2019 15:00
1,2-Dichlorobenzene	< 2.00	ug/L		7/10/2019 15:00
1,2-Dichloroethane	< 2.00	ug/L		7/10/2019 15:00
1,2-Dichloropropane	< 2.00	ug/L		7/10/2019 15:00
1,3-Dichlorobenzene	< 2.00	ug/L		7/10/2019 15:00
1,4-Dichlorobenzene	< 2.00	ug/L		7/10/2019 15:00
1,4-Dioxane	< 20.0	ug/L		7/10/2019 15:00
2-Butanone	< 10.0	ug/L		7/10/2019 15:00
2-Hexanone	< 5.00	ug/L		7/10/2019 15:00
4-Methyl-2-pentanone	< 5.00	ug/L		7/10/2019 15:00
Acetone	< 10.0	ug/L		7/10/2019 15:00
Benzene	< 1.00	ug/L		7/10/2019 15:00
Bromochloromethane	< 5.00	ug/L		7/10/2019 15:00
Bromodichloromethane	< 2.00	ug/L		7/10/2019 15:00
Bromoform	< 5.00	ug/L		7/10/2019 15:00
Bromomethane	< 2.00	ug/L		7/10/2019 15:00
Carbon disulfide	< 2.00	ug/L		7/10/2019 15:00
Carbon Tetrachloride	< 2.00	ug/L		7/10/2019 15:00
Chlorobenzene	< 2.00	ug/L		7/10/2019 15:00

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Monday, July 15, 2019



Lab Project ID: 192983

Client: **Bergmann Associates**

Project Reference: VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

Sample Identifier:	Trip Blank T934			Date Sampled:	6/26/2019
Lab Sample ID:	192983-10			Date Received:	6/27/2019
Matrix:	Water				
Chloroethane	< 2.00	ug/L		7/10/2019	15:00
Chloroform	< 2.00	ug/L		7/10/2019	15:00
Chloromethane	< 2.00	ug/L		7/10/2019	15:00
cis-1,2-Dichloroethene	< 2.00	ug/L		7/10/2019	15:00
cis-1,3-Dichloropropene	< 2.00	ug/L		7/10/2019	15:00
Cyclohexane	< 10.0	ug/L		7/10/2019	15:00
Dibromochloromethane	< 2.00	ug/L		7/10/2019	15:00
Dichlorodifluoromethane	< 2.00	ug/L		7/10/2019	15:00
Ethylbenzene	< 2.00	ug/L		7/10/2019	15:00
Freon 113	< 2.00	ug/L		7/10/2019	15:00
Isopropylbenzene	< 2.00	ug/L		7/10/2019	15:00
m,p-Xylene	< 2.00	ug/L		7/10/2019	15:00
Methyl acetate	< 2.00	ug/L		7/10/2019	15:00
Methyl tert-butyl Ether	< 2.00	ug/L		7/10/2019	15:00
Methylcyclohexane	< 2.00	ug/L		7/10/2019	15:00
Methylene chloride	< 5.00	ug/L		7/10/2019	15:00
o-Xylene	< 2.00	ug/L		7/10/2019	15:00
Styrene	< 5.00	ug/L		7/10/2019	15:00
Tetrachloroethene	< 2.00	ug/L		7/10/2019	15:00
Toluene	< 2.00	ug/L		7/10/2019	15:00
trans-1,2-Dichloroethene	< 2.00	ug/L		7/10/2019	15:00
trans-1,3-Dichloropropene	< 2.00	ug/L		7/10/2019	15:00
Trichloroethene	< 2.00	ug/L		7/10/2019	15:00
Trichlorofluoromethane	< 2.00	ug/L		7/10/2019	15:00
Vinyl chloride	< 2.00	ug/L		7/10/2019	15:00

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Report Prepared Monday, July 15, 2019



**Lab Project ID:** 192983

**Client:** **Bergmann Associates**

**Project Reference:** VOA 2nd Qtr. 2019 Back Lot 214 Lake Ave

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**Sample Identifier:** Trip Blank T934

**Lab Sample ID:** 192983-10

**Date Sampled:** 6/26/2019

**Matrix:** Water

**Date Received:** 6/27/2019

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<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	<b>122</b>	73.4 - 131		7/10/2019	15:00
4-Bromofluorobenzene	<b>89.0</b>	57.2 - 129		7/10/2019	15:00
Pentafluorobenzene	<b>93.0</b>	87 - 112		7/10/2019	15:00
Toluene-D8	<b>91.5</b>	78.3 - 115		7/10/2019	15:00

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:** x62494.D

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*Report Prepared Monday, July 15, 2019*



## Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

*"<" = Analyzed for but not detected at or above the quantitation limit.*

*"E" = Result has been estimated, calibration limit exceeded.*

*"Z" = See case narrative.*

*"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.*

*"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.*

*"B" = Method blank contained trace levels of analyte. Refer to included method blank report.*

*"J" = Result estimated between the quantitation limit and half the quantitation limit.*

*"L" = Laboratory Control Sample recovery outside accepted QC limits.*

*"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.*

*"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.*

*"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

*"(1)" = Indicates data from primary column used for QC calculation.*

*"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.*

*"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.*

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# GENERAL TERMS AND CONDITIONS

## LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

### Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

### Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

### Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

### Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

### Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

### Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

### Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

### Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

### Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

### Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

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# CHAIN OF CUSTODY

Page 1 of 2

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PARADIGM  
ENVIRONMENTAL SERVICES, INC.

REPORT TO:

INVOICE TO:

CLIENT: Bergmann	CLIENT: Shawne	LAB PROJECT ID
ADDRESS: 288 E. Grand Street	ADDRESS:	192983
CITY: Rochester	CITY:	Quotation #:
STATE: NY	STATE:	
ZIP: 14604	ZIP:	
PHONE:	PHONE:	Email: Steve Demco

PROJECT REFERENCE NOA 2nd Ctr. 2019 Backlot 2446 Ave	ATTN: Steve Demco	ATTN:
Matrix Codes: AQ - Aqueous Liquid NA - Non-Aqueous Liquid	WA - Water WG - Groundwater	DW - Drinking Water WW - Wastewater
	SO - Soil SL - Sludge	SD - Solid PT - Paint
	WP - Wipe CK - Caulk	OL - Oil AR - Air

DATE COLLECTED	TIME COLLECTED	CO M P O S I T E	G R A B	SAMPLE IDENTIFIER	M A O T D R E I S	C U N T B E A I N F O R S	REQUESTED ANALYSIS	REMARKS	PARADIGM LAB SAMPLE NUMBER
6/27/19	0700	X	X	MW-101	WG	4	X	8270 B&N General	01
	0850	X	X	MWR-101	WG	4	X	8260 ICL MW 6/27/19	02
	1015	X	X	MW-103	WG	4	X		03
	1130	X	X	MW-107	WG	4	X		04
	1130	X	X	MW-107MS	WG	4	X		
	1130	X	X	MW-107MSB	WG	4	X		
	1200	X	X	MW-106	WG	4	X		05
	200	X	X	MW-102	WG	4	X		06
	235	X	X	MWR-102	WG	4	X		07
	1130	X	X	Blind Duplicate	WG	4	X		08

Turnaround Time	Report Supplements
Availability contingent upon lab approval; additional fees may apply.	
Standard 5 day	None Required
10 day	Batch QC
Rush 3 day	Category A
Rush 2 day	Category B
Rush 1 day	
Date Needed	Other
please indicate date needed:	please indicate package needed:

Sampled By: Stephen J Demco 6/27/19 CAT B 1929

Relinquished By: [Signature] 1545 6/27/19

Reported By: [Signature] 6/27/19 1535

Received @ Lab By: [Signature] 6/27/19 1556

Date/Time: 6/27/19 1556

P.I.F. [Box]

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions.



PROJECT REFERENCE		ATTN: Steve DeMedo		ATTN: Steve DeMedo	
VOA 2 <sup>nd</sup> GR, 2019		Matrix Codes:			
Back Lot 214 Lake Ave		NA - Aqueous Liquid	WA - Water	DW - Drinking Water	SO - Soil
		NA - Non-Aqueous Liquid	WG - Groundwater	WW - Wastewater	SL - Sludge
					SD - Solid
					PT - Paint
					WP - Wipe
					CK - Caulk
					OL - Oil
					AR - Air

[illegible]

Turnaround Time	Report Supplements
<i>Availability contingent upon lab approval; additional fees may apply.</i>	
Standard 5 day <input type="checkbox"/>	None Required <input type="checkbox"/>
10 day <input checked="" type="checkbox"/>	Batch QC <input type="checkbox"/>
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>
Rush 2 day <input type="checkbox"/>	Category B <input checked="" type="checkbox"/>
Rush 1 day <input type="checkbox"/>	
Date Needed _____ please indicate date needed: _____	Other please indicate package needed: _____
	Other EDD please indicate EDD needed : _____

Stephen J. DeMarco 6/27/19

Sampled By ML Date/Time 6/27/19 1545

Retinquished By \_\_\_\_\_ Date/Time \_\_\_\_\_

Received By Jane J. DeMarco Date/Time 6/27/19 1545

Received @ Lab By \_\_\_\_\_ Date/Time \_\_\_\_\_

Total Cost:

P.I.F. ☐

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions.



# Chain of Custody Supplement

Client: Bergmann  
 Lab Project ID: 192983

Completed by: Molly Kail  
 Date: 6/25/19

## Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Preservation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	<u>3°C cool</u>		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			



**Lab Project ID:** 194905

**Client:** **Bergmann Associates**

**Project Reference:** VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

---

**Sample Identifier:** MW-102

**Lab Sample ID:** 194905-01

**Date Sampled:** 10/4/2019

**Matrix:** Groundwater

**Date Received:** 10/7/2019

---

**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		10/9/2019 09:01

**Method Reference(s):** EPA 7470A

**Preparation Date:** 10/8/2019

**Data File:** Hg191009A

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*Report Prepared Thursday, October 17, 2019*



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-102

Lab Sample ID: 194905-01

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	0.586	mg/L		10/9/2019 20:23
Antimony	0.0337	mg/L	J	10/9/2019 20:23
Arsenic	< 0.0100	mg/L		10/11/2019 15:45
Barium	0.973	mg/L		10/9/2019 20:23
Beryllium	< 0.00500	mg/L		10/9/2019 20:23
Cadmium	< 0.00500	mg/L		10/9/2019 20:23
Calcium	63.9	mg/L		10/11/2019 15:41
Chromium	< 0.0100	mg/L		10/9/2019 20:23
Cobalt	< 0.0500	mg/L		10/9/2019 20:23
Copper	< 0.0400	mg/L		10/11/2019 15:45
Iron	53.9	mg/L		10/9/2019 20:23
Lead	0.00928	mg/L	J	10/9/2019 20:23
Magnesium	183	mg/L		10/9/2019 20:23
Manganese	1.70	mg/L		10/9/2019 20:23
Nickel	< 0.0400	mg/L		10/9/2019 20:23
Potassium	47.7	mg/L		10/9/2019 20:23
Selenium	< 0.0200	mg/L		10/11/2019 15:45
Silver	< 0.0100	mg/L		10/9/2019 20:23
Sodium	187	mg/L		10/11/2019 15:41
Thallium	0.0584	mg/L		10/11/2019 15:45
Vanadium	< 0.0250	mg/L		10/9/2019 20:23
Zinc	0.0650	mg/L		10/9/2019 20:23

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Report Prepared Thursday, October 17, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 194905

**Client:** **Bergmann Associates**

**Project Reference:** VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

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**Sample Identifier:** MW-102

**Lab Sample ID:** 194905-01

**Date Sampled:** 10/4/2019

**Matrix:** Groundwater

**Date Received:** 10/7/2019

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 10/8/2019

**Data File:** 191009B

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*Report Prepared Thursday, October 17, 2019*



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-102

Lab Sample ID: 194905-01

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**Semi-Volatile Organics (Base Neutrals)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1-Biphenyl	< 10.0	ug/L		10/8/2019 22:16
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		10/8/2019 22:16
1,2,4-Trichlorobenzene	< 10.0	ug/L		10/8/2019 22:16
1,2-Dichlorobenzene	< 10.0	ug/L		10/8/2019 22:16
1,3-Dichlorobenzene	< 10.0	ug/L		10/8/2019 22:16
1,4-Dichlorobenzene	< 10.0	ug/L		10/8/2019 22:16
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		10/8/2019 22:16
2,4-Dinitrotoluene	< 10.0	ug/L		10/8/2019 22:16
2,6-Dinitrotoluene	< 10.0	ug/L		10/8/2019 22:16
2-Chloronaphthalene	< 10.0	ug/L		10/8/2019 22:16
2-Methylnaphthalene	< 10.0	ug/L		10/8/2019 22:16
2-Nitroaniline	< 20.0	ug/L		10/8/2019 22:16
3,3'-Dichlorobenzidine	< 10.0	ug/L		10/8/2019 22:16
3-Nitroaniline	< 20.0	ug/L		10/8/2019 22:16
4-Bromophenyl phenyl ether	< 10.0	ug/L		10/8/2019 22:16
4-Chloroaniline	< 10.0	ug/L		10/8/2019 22:16
4-Chlorophenyl phenyl ether	< 10.0	ug/L		10/8/2019 22:16
4-Nitroaniline	< 20.0	ug/L		10/8/2019 22:16
Acenaphthene	< 10.0	ug/L		10/8/2019 22:16
Acenaphthylene	< 10.0	ug/L		10/8/2019 22:16
Acetophenone	< 10.0	ug/L		10/8/2019 22:16
Anthracene	< 10.0	ug/L		10/8/2019 22:16
Atrazine	< 10.0	ug/L		10/8/2019 22:16

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-102		
Lab Sample ID:	194905-01	Date Sampled:	10/4/2019
Matrix:	Groundwater	Date Received:	10/7/2019
Benzaldehyde	< 10.0	ug/L	10/8/2019 22:16
Benzo (a) anthracene	< 10.0	ug/L	10/8/2019 22:16
Benzo (a) pyrene	< 10.0	ug/L	10/8/2019 22:16
Benzo (b) fluoranthene	< 10.0	ug/L	10/8/2019 22:16
Benzo (g,h,i) perylene	< 10.0	ug/L	10/8/2019 22:16
Benzo (k) fluoranthene	< 10.0	ug/L	10/8/2019 22:16
Bis (2-chloroethoxy) methane	< 10.0	ug/L	10/8/2019 22:16
Bis (2-chloroethyl) ether	< 10.0	ug/L	10/8/2019 22:16
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	10/8/2019 22:16
Butylbenzylphthalate	< 10.0	ug/L	10/8/2019 22:16
Caprolactam	< 10.0	ug/L	10/8/2019 22:16
Carbazole	< 10.0	ug/L	10/8/2019 22:16
Chrysene	< 10.0	ug/L	10/8/2019 22:16
Dibenz (a,h) anthracene	< 10.0	ug/L	10/8/2019 22:16
Dibenzofuran	< 10.0	ug/L	10/8/2019 22:16
Diethyl phthalate	< 10.0	ug/L	10/8/2019 22:16
Dimethyl phthalate	< 20.0	ug/L	10/8/2019 22:16
Di-n-butyl phthalate	< 10.0	ug/L	10/8/2019 22:16
Di-n-octylphthalate	< 10.0	ug/L	10/8/2019 22:16
Fluoranthene	< 10.0	ug/L	10/8/2019 22:16
Fluorene	< 10.0	ug/L	10/8/2019 22:16
Hexachlorobenzene	< 10.0	ug/L	10/8/2019 22:16
Hexachlorobutadiene	< 10.0	ug/L	10/8/2019 22:16
Hexachlorocyclopentadiene	< 10.0	ug/L	10/8/2019 22:16
Hexachloroethane	< 10.0	ug/L	10/8/2019 22:16

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

<b>Sample Identifier:</b>		MW-102			
<b>Lab Sample ID:</b>		194905-01		<b>Date Sampled:</b>	10/4/2019
<b>Matrix:</b>		Groundwater		<b>Date Received:</b>	10/7/2019
<hr/>					
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L		10/8/2019	22:16
Isophorone	< 10.0	ug/L		10/8/2019	22:16
Naphthalene	< 10.0	ug/L		10/8/2019	22:16
Nitrobenzene	< 10.0	ug/L		10/8/2019	22:16
N-Nitroso-di-n-propylamine	< 10.0	ug/L		10/8/2019	22:16
N-Nitrosodiphenylamine	< 10.0	ug/L		10/8/2019	22:16
Phenanthrene	< 10.0	ug/L		10/8/2019	22:16
Pyrene	< 10.0	ug/L		10/8/2019	22:16
<hr/>					
<b><u>Surrogate</u></b>		<b><u>Percent Recovery</u></b>	<b><u>Limits</u></b>	<b><u>Outliers</u></b>	<b><u>Date Analyzed</u></b>
2-Fluorobiphenyl		<b>44.8</b>	36.3 - 95.4		10/8/2019 22:16
Nitrobenzene-d5		<b>63.8</b>	52.1 - 98.9		10/8/2019 22:16
Terphenyl-d14		<b>72.2</b>	59.6 - 112		10/8/2019 22:16
<hr/>					
<b>Method Reference(s):</b>		EPA 8270D			
		EPA 3510C			
<b>Preparation Date:</b>		10/8/2019			
<b>Data File:</b>		B40632.D			

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-102

Lab Sample ID: 194905-01

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		10/16/2019 17:43
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		10/16/2019 17:43
1,1,2-Trichloroethane	< 2.00	ug/L		10/16/2019 17:43
1,1-Dichloroethane	< 2.00	ug/L		10/16/2019 17:43
1,1-Dichloroethene	< 2.00	ug/L		10/16/2019 17:43
1,2,3-Trichlorobenzene	< 5.00	ug/L		10/16/2019 17:43
1,2,4-Trichlorobenzene	< 5.00	ug/L		10/16/2019 17:43
1,2,4-Trimethylbenzene	< 2.00	ug/L		10/16/2019 17:43
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		10/16/2019 17:43
1,2-Dibromoethane	< 2.00	ug/L		10/16/2019 17:43
1,2-Dichlorobenzene	< 2.00	ug/L		10/16/2019 17:43
1,2-Dichloroethane	< 2.00	ug/L		10/16/2019 17:43
1,2-Dichloropropane	< 2.00	ug/L		10/16/2019 17:43
1,3,5-Trimethylbenzene	< 2.00	ug/L		10/16/2019 17:43
1,3-Dichlorobenzene	< 2.00	ug/L		10/16/2019 17:43
1,4-Dichlorobenzene	< 2.00	ug/L		10/16/2019 17:43
1,4-Dioxane	< 20.0	ug/L		10/16/2019 17:43
2-Butanone	< 10.0	ug/L		10/16/2019 17:43
2-Hexanone	< 5.00	ug/L		10/16/2019 17:43
4-Methyl-2-pentanone	< 5.00	ug/L		10/16/2019 17:43
Acetone	< 10.0	ug/L		10/16/2019 17:43
Benzene	< 1.00	ug/L		10/16/2019 17:43
Bromochloromethane	< 5.00	ug/L		10/16/2019 17:43

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-102			
Lab Sample ID:	194905-01		Date Sampled:	10/4/2019
Matrix:	Groundwater		Date Received:	10/7/2019
Bromodichloromethane	< 2.00	ug/L		10/16/2019 17:43
Bromoform	< 5.00	ug/L		10/16/2019 17:43
Bromomethane	< 2.00	ug/L		10/16/2019 17:43
Carbon disulfide	< 2.00	ug/L		10/16/2019 17:43
Carbon Tetrachloride	< 2.00	ug/L		10/16/2019 17:43
Chlorobenzene	< 2.00	ug/L		10/16/2019 17:43
Chloroethane	< 2.00	ug/L		10/16/2019 17:43
Chloroform	< 2.00	ug/L		10/16/2019 17:43
Chloromethane	< 2.00	ug/L		10/16/2019 17:43
cis-1,2-Dichloroethene	< 2.00	ug/L		10/16/2019 17:43
cis-1,3-Dichloropropene	< 2.00	ug/L		10/16/2019 17:43
Cyclohexane	< 10.0	ug/L		10/16/2019 17:43
Dibromochloromethane	< 2.00	ug/L		10/16/2019 17:43
Dichlorodifluoromethane	< 2.00	ug/L		10/16/2019 17:43
Ethylbenzene	< 2.00	ug/L		10/16/2019 17:43
Freon 113	< 2.00	ug/L		10/16/2019 17:43
Isopropylbenzene	< 2.00	ug/L		10/16/2019 17:43
m,p-Xylene	< 2.00	ug/L		10/16/2019 17:43
Methyl acetate	< 2.00	ug/L		10/16/2019 17:43
Methyl tert-butyl Ether	< 2.00	ug/L		10/16/2019 17:43
Methylcyclohexane	< 2.00	ug/L		10/16/2019 17:43
Methylene chloride	< 5.00	ug/L		10/16/2019 17:43
Naphthalene	< 5.00	ug/L		10/16/2019 17:43
n-Butylbenzene	< 2.00	ug/L		10/16/2019 17:43
n-Propylbenzene	< 2.00	ug/L		10/16/2019 17:43

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

<b>Sample Identifier:</b>		MW-102			
<b>Lab Sample ID:</b>		194905-01		<b>Date Sampled:</b>	10/4/2019
<b>Matrix:</b>		Groundwater		<b>Date Received:</b>	10/7/2019
<hr/>					
o-Xylene	< 2.00	ug/L		10/16/2019	17:43
p-Isopropyltoluene	< 2.00	ug/L		10/16/2019	17:43
sec-Butylbenzene	< 2.00	ug/L		10/16/2019	17:43
Styrene	< 5.00	ug/L		10/16/2019	17:43
tert-Butylbenzene	< 2.00	ug/L		10/16/2019	17:43
Tetrachloroethene	< 2.00	ug/L		10/16/2019	17:43
Toluene	< 2.00	ug/L		10/16/2019	17:43
trans-1,2-Dichloroethene	< 2.00	ug/L		10/16/2019	17:43
trans-1,3-Dichloropropene	< 2.00	ug/L		10/16/2019	17:43
Trichloroethene	< 2.00	ug/L		10/16/2019	17:43
Trichlorofluoromethane	< 2.00	ug/L		10/16/2019	17:43
Vinyl chloride	< 2.00	ug/L		10/16/2019	17:43
<hr/>					
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>119</b>	70.5 - 135		10/16/2019 17:43
4-Bromofluorobenzene		<b>90.1</b>	62 - 127		10/16/2019 17:43
Pentafluorobenzene		<b>89.2</b>	87 - 113		10/16/2019 17:43
Toluene-D8		<b>97.7</b>	80.8 - 115		10/16/2019 17:43

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x65356.D

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Report Prepared Thursday, October 17, 2019



**Lab Project ID:** 194905

**Client:** **Bergmann Associates**

**Project Reference:** VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

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**Sample Identifier:** MWR-102

**Lab Sample ID:** 194905-02

**Date Sampled:** 10/4/2019

**Matrix:** Groundwater

**Date Received:** 10/7/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		10/9/2019 09:06

**Method Reference(s):** EPA 7470A

**Preparation Date:** 10/8/2019

**Data File:** Hg191009A

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*Report Prepared Thursday, October 17, 2019*



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MWR-102

Lab Sample ID: 194905-02

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	< 0.100	mg/L		10/9/2019 20:27
Antimony	< 0.0600	mg/L		10/9/2019 20:27
Arsenic	< 0.0100	mg/L		10/11/2019 15:59
Barium	<b>0.0664</b>	mg/L	J	10/9/2019 20:27
Beryllium	< 0.00500	mg/L		10/9/2019 20:27
Cadmium	< 0.00500	mg/L		10/9/2019 20:27
Calcium	<b>101</b>	mg/L		10/9/2019 20:27
Chromium	< 0.0100	mg/L		10/9/2019 20:27
Cobalt	< 0.0500	mg/L		10/9/2019 20:27
Copper	< 0.0400	mg/L		10/11/2019 15:59
Iron	< 0.100	mg/L		10/9/2019 20:27
Lead	< 0.0100	mg/L		10/9/2019 20:27
Magnesium	<b>65.1</b>	mg/L		10/9/2019 20:27
Manganese	< 0.0150	mg/L		10/9/2019 20:27
Nickel	< 0.0400	mg/L		10/9/2019 20:27
Potassium	<b>10.5</b>	mg/L		10/9/2019 20:27
Selenium	< 0.0200	mg/L		10/11/2019 15:59
Silver	< 0.0100	mg/L		10/9/2019 20:27
Sodium	<b>298</b>	mg/L		10/9/2019 20:27
Thallium	< 0.0250	mg/L		10/11/2019 15:59
Vanadium	< 0.0250	mg/L		10/9/2019 20:27
Zinc	<b>0.0433</b>	mg/L	J	10/9/2019 20:27

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Report Prepared Thursday, October 17, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 194905

**Client:** **Bergmann Associates**

**Project Reference:** VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

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**Sample Identifier:** MWR-102

**Lab Sample ID:** 194905-02

**Date Sampled:** 10/4/2019

**Matrix:** Groundwater

**Date Received:** 10/7/2019

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 10/8/2019

**Data File:** 191009B

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*Report Prepared Thursday, October 17, 2019*



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MWR-102

Lab Sample ID: 194905-02

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**Semi-Volatile Organics (Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		10/8/2019 22:44
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		10/8/2019 22:44
1,2,4-Trichlorobenzene	< 10.0	ug/L		10/8/2019 22:44
1,2-Dichlorobenzene	< 10.0	ug/L		10/8/2019 22:44
1,3-Dichlorobenzene	< 10.0	ug/L		10/8/2019 22:44
1,4-Dichlorobenzene	< 10.0	ug/L		10/8/2019 22:44
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		10/8/2019 22:44
2,4-Dinitrotoluene	< 10.0	ug/L		10/8/2019 22:44
2,6-Dinitrotoluene	< 10.0	ug/L		10/8/2019 22:44
2-Chloronaphthalene	< 10.0	ug/L		10/8/2019 22:44
2-Methylnaphthalene	< 10.0	ug/L		10/8/2019 22:44
2-Nitroaniline	< 20.0	ug/L		10/8/2019 22:44
3,3'-Dichlorobenzidine	< 10.0	ug/L		10/8/2019 22:44
3-Nitroaniline	< 20.0	ug/L		10/8/2019 22:44
4-Bromophenyl phenyl ether	< 10.0	ug/L		10/8/2019 22:44
4-Chloroaniline	< 10.0	ug/L		10/8/2019 22:44
4-Chlorophenyl phenyl ether	< 10.0	ug/L		10/8/2019 22:44
4-Nitroaniline	< 20.0	ug/L		10/8/2019 22:44
Acenaphthene	< 10.0	ug/L		10/8/2019 22:44
Acenaphthylene	< 10.0	ug/L		10/8/2019 22:44
Acetophenone	< 10.0	ug/L		10/8/2019 22:44
Anthracene	< 10.0	ug/L		10/8/2019 22:44
Atrazine	< 10.0	ug/L		10/8/2019 22:44

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MWR-102		
Lab Sample ID:	194905-02	Date Sampled:	10/4/2019
Matrix:	Groundwater	Date Received:	10/7/2019
Benzaldehyde	< 10.0	ug/L	10/8/2019 22:44
Benzo (a) anthracene	< 10.0	ug/L	10/8/2019 22:44
Benzo (a) pyrene	< 10.0	ug/L	10/8/2019 22:44
Benzo (b) fluoranthene	< 10.0	ug/L	10/8/2019 22:44
Benzo (g,h,i) perylene	< 10.0	ug/L	10/8/2019 22:44
Benzo (k) fluoranthene	< 10.0	ug/L	10/8/2019 22:44
Bis (2-chloroethoxy) methane	< 10.0	ug/L	10/8/2019 22:44
Bis (2-chloroethyl) ether	< 10.0	ug/L	10/8/2019 22:44
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	10/8/2019 22:44
Butylbenzylphthalate	< 10.0	ug/L	10/8/2019 22:44
Caprolactam	< 10.0	ug/L	10/8/2019 22:44
Carbazole	< 10.0	ug/L	10/8/2019 22:44
Chrysene	< 10.0	ug/L	10/8/2019 22:44
Dibenz (a,h) anthracene	< 10.0	ug/L	10/8/2019 22:44
Dibenzofuran	< 10.0	ug/L	10/8/2019 22:44
Diethyl phthalate	< 10.0	ug/L	10/8/2019 22:44
Dimethyl phthalate	< 20.0	ug/L	10/8/2019 22:44
Di-n-butyl phthalate	< 10.0	ug/L	10/8/2019 22:44
Di-n-octylphthalate	< 10.0	ug/L	10/8/2019 22:44
Fluoranthene	< 10.0	ug/L	10/8/2019 22:44
Fluorene	< 10.0	ug/L	10/8/2019 22:44
Hexachlorobenzene	< 10.0	ug/L	10/8/2019 22:44
Hexachlorobutadiene	< 10.0	ug/L	10/8/2019 22:44
Hexachlorocyclopentadiene	< 10.0	ug/L	10/8/2019 22:44
Hexachloroethane	< 10.0	ug/L	10/8/2019 22:44

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MWR-102				
Lab Sample ID:	194905-02		Date Sampled:	10/4/2019	
Matrix:	Groundwater		Date Received:	10/7/2019	
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L		10/8/2019	22:44
Isophorone	< 10.0	ug/L		10/8/2019	22:44
Naphthalene	< 10.0	ug/L		10/8/2019	22:44
Nitrobenzene	< 10.0	ug/L		10/8/2019	22:44
N-Nitroso-di-n-propylamine	< 10.0	ug/L		10/8/2019	22:44
N-Nitrosodiphenylamine	< 10.0	ug/L		10/8/2019	22:44
Phenanthrene	< 10.0	ug/L		10/8/2019	22:44
Pyrene	< 10.0	ug/L		10/8/2019	22:44
<b><u>Surrogate</u></b>	<b><u>Percent Recovery</u></b>	<b><u>Limits</u></b>	<b><u>Outliers</u></b>	<b><u>Date Analyzed</u></b>	
2-Fluorobiphenyl	46.4	36.3 - 95.4		10/8/2019	22:44
Nitrobenzene-d5	67.4	52.1 - 98.9		10/8/2019	22:44
Terphenyl-d14	79.4	59.6 - 112		10/8/2019	22:44
Method Reference(s):	EPA 8270D				
	EPA 3510C				
Preparation Date:	10/8/2019				
Data File:	B40633.D				

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MWR-102

Lab Sample ID: 194905-02

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		10/16/2019 17:20
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		10/16/2019 17:20
1,1,2-Trichloroethane	< 2.00	ug/L		10/16/2019 17:20
1,1-Dichloroethane	< 2.00	ug/L		10/16/2019 17:20
1,1-Dichloroethene	< 2.00	ug/L		10/16/2019 17:20
1,2,3-Trichlorobenzene	< 5.00	ug/L		10/16/2019 17:20
1,2,4-Trichlorobenzene	< 5.00	ug/L		10/16/2019 17:20
1,2,4-Trimethylbenzene	< 2.00	ug/L		10/16/2019 17:20
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		10/16/2019 17:20
1,2-Dibromoethane	< 2.00	ug/L		10/16/2019 17:20
1,2-Dichlorobenzene	< 2.00	ug/L		10/16/2019 17:20
1,2-Dichloroethane	< 2.00	ug/L		10/16/2019 17:20
1,2-Dichloropropane	< 2.00	ug/L		10/16/2019 17:20
1,3,5-Trimethylbenzene	< 2.00	ug/L		10/16/2019 17:20
1,3-Dichlorobenzene	< 2.00	ug/L		10/16/2019 17:20
1,4-Dichlorobenzene	< 2.00	ug/L		10/16/2019 17:20
1,4-Dioxane	< 20.0	ug/L		10/16/2019 17:20
2-Butanone	< 10.0	ug/L		10/16/2019 17:20
2-Hexanone	< 5.00	ug/L		10/16/2019 17:20
4-Methyl-2-pentanone	< 5.00	ug/L		10/16/2019 17:20
Acetone	< 10.0	ug/L		10/16/2019 17:20
Benzene	< 1.00	ug/L		10/16/2019 17:20
Bromochloromethane	< 5.00	ug/L		10/16/2019 17:20

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MWR-102			
Lab Sample ID:	194905-02		Date Sampled:	10/4/2019
Matrix:	Groundwater		Date Received:	10/7/2019
Bromodichloromethane	< 2.00	ug/L		10/16/2019 17:20
Bromoform	< 5.00	ug/L		10/16/2019 17:20
Bromomethane	< 2.00	ug/L		10/16/2019 17:20
Carbon disulfide	< 2.00	ug/L		10/16/2019 17:20
Carbon Tetrachloride	< 2.00	ug/L		10/16/2019 17:20
Chlorobenzene	< 2.00	ug/L		10/16/2019 17:20
Chloroethane	< 2.00	ug/L		10/16/2019 17:20
Chloroform	< 2.00	ug/L		10/16/2019 17:20
Chloromethane	< 2.00	ug/L		10/16/2019 17:20
cis-1,2-Dichloroethene	< 2.00	ug/L		10/16/2019 17:20
cis-1,3-Dichloropropene	< 2.00	ug/L		10/16/2019 17:20
Cyclohexane	< 10.0	ug/L		10/16/2019 17:20
Dibromochloromethane	< 2.00	ug/L		10/16/2019 17:20
Dichlorodifluoromethane	< 2.00	ug/L		10/16/2019 17:20
Ethylbenzene	< 2.00	ug/L		10/16/2019 17:20
Freon 113	< 2.00	ug/L		10/16/2019 17:20
Isopropylbenzene	< 2.00	ug/L		10/16/2019 17:20
m,p-Xylene	< 2.00	ug/L		10/16/2019 17:20
Methyl acetate	< 2.00	ug/L		10/16/2019 17:20
Methyl tert-butyl Ether	11.5	ug/L		10/16/2019 17:20
Methylcyclohexane	< 2.00	ug/L		10/16/2019 17:20
Methylene chloride	< 5.00	ug/L		10/16/2019 17:20
Naphthalene	< 5.00	ug/L		10/16/2019 17:20
n-Butylbenzene	< 2.00	ug/L		10/16/2019 17:20
n-Propylbenzene	< 2.00	ug/L		10/16/2019 17:20

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

<b>Sample Identifier:</b>		MWR-102			
<b>Lab Sample ID:</b>		194905-02		<b>Date Sampled:</b>	10/4/2019
<b>Matrix:</b>		Groundwater		<b>Date Received:</b>	10/7/2019
<hr/>					
o-Xylene	< 2.00	ug/L		10/16/2019	17:20
p-Isopropyltoluene	< 2.00	ug/L		10/16/2019	17:20
sec-Butylbenzene	< 2.00	ug/L		10/16/2019	17:20
Styrene	< 5.00	ug/L		10/16/2019	17:20
tert-Butylbenzene	< 2.00	ug/L		10/16/2019	17:20
Tetrachloroethene	< 2.00	ug/L		10/16/2019	17:20
Toluene	< 2.00	ug/L		10/16/2019	17:20
trans-1,2-Dichloroethene	< 2.00	ug/L		10/16/2019	17:20
trans-1,3-Dichloropropene	< 2.00	ug/L		10/16/2019	17:20
Trichloroethene	< 2.00	ug/L		10/16/2019	17:20
Trichlorofluoromethane	< 2.00	ug/L		10/16/2019	17:20
Vinyl chloride	< 2.00	ug/L		10/16/2019	17:20
<hr/>					
<b>Surrogate</b>	<b>Percent Recovery</b>		<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>114</b>		70.5 - 135		10/16/2019 17:20
4-Bromofluorobenzene	<b>80.5</b>		62 - 127		10/16/2019 17:20
Pentafluorobenzene	<b>92.6</b>		87 - 113		10/16/2019 17:20
Toluene-D8	<b>91.1</b>		80.8 - 115		10/16/2019 17:20

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x65355.D

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Report Prepared Thursday, October 17, 2019



**Lab Project ID:** 194905

**Client:** **Bergmann Associates**

**Project Reference:** VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

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**Sample Identifier:** MW-10X

**Lab Sample ID:** 194905-03

**Date Sampled:** 10/4/2019

**Matrix:** Groundwater

**Date Received:** 10/7/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		10/9/2019 09:08

**Method Reference(s):** EPA 7470A

**Preparation Date:** 10/8/2019

**Data File:** Hg191009A

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*Report Prepared Thursday, October 17, 2019*



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-10X

Lab Sample ID: 194905-03

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	< 0.100	mg/L		10/9/2019 20:31
Antimony	< 0.0600	mg/L		10/9/2019 20:31
Arsenic	< 0.0100	mg/L		10/11/2019 16:03
Barium	<b>0.0657</b>	mg/L	J	10/9/2019 20:31
Beryllium	< 0.00500	mg/L		10/9/2019 20:31
Cadmium	< 0.00500	mg/L		10/9/2019 20:31
Calcium	<b>100</b>	mg/L		10/9/2019 20:31
Chromium	< 0.0100	mg/L		10/9/2019 20:31
Cobalt	< 0.0500	mg/L		10/9/2019 20:31
Copper	< 0.0400	mg/L		10/11/2019 16:03
Iron	< 0.100	mg/L		10/9/2019 20:31
Lead	< 0.0100	mg/L		10/9/2019 20:31
Magnesium	<b>65.3</b>	mg/L		10/9/2019 20:31
Manganese	< 0.0150	mg/L		10/9/2019 20:31
Nickel	< 0.0400	mg/L		10/9/2019 20:31
Potassium	<b>10.5</b>	mg/L		10/9/2019 20:31
Selenium	< 0.0200	mg/L		10/11/2019 16:03
Silver	< 0.0100	mg/L		10/9/2019 20:31
Sodium	<b>298</b>	mg/L		10/9/2019 20:31
Thallium	< 0.0250	mg/L		10/9/2019 20:31
Vanadium	< 0.0250	mg/L		10/9/2019 20:31
Zinc	< 0.0600	mg/L		10/9/2019 20:31

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Report Prepared Thursday, October 17, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 194905

**Client:** **Bergmann Associates**

**Project Reference:** VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

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**Sample Identifier:** MW-10X

**Lab Sample ID:** 194905-03

**Date Sampled:** 10/4/2019

**Matrix:** Groundwater

**Date Received:** 10/7/2019

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 10/8/2019

**Data File:** 191009B

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*Report Prepared Thursday, October 17, 2019*



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-10X

Lab Sample ID: 194905-03

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**Semi-Volatile Organics (Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		10/8/2019 23:13
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		10/8/2019 23:13
1,2,4-Trichlorobenzene	< 10.0	ug/L		10/8/2019 23:13
1,2-Dichlorobenzene	< 10.0	ug/L		10/8/2019 23:13
1,3-Dichlorobenzene	< 10.0	ug/L		10/8/2019 23:13
1,4-Dichlorobenzene	< 10.0	ug/L		10/8/2019 23:13
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		10/8/2019 23:13
2,4-Dinitrotoluene	< 10.0	ug/L		10/8/2019 23:13
2,6-Dinitrotoluene	< 10.0	ug/L		10/8/2019 23:13
2-Chloronaphthalene	< 10.0	ug/L		10/8/2019 23:13
2-Methylnaphthalene	< 10.0	ug/L		10/8/2019 23:13
2-Nitroaniline	< 20.0	ug/L		10/8/2019 23:13
3,3'-Dichlorobenzidine	< 10.0	ug/L		10/8/2019 23:13
3-Nitroaniline	< 20.0	ug/L		10/8/2019 23:13
4-Bromophenyl phenyl ether	< 10.0	ug/L		10/8/2019 23:13
4-Chloroaniline	< 10.0	ug/L		10/8/2019 23:13
4-Chlorophenyl phenyl ether	< 10.0	ug/L		10/8/2019 23:13
4-Nitroaniline	< 20.0	ug/L		10/8/2019 23:13
Acenaphthene	< 10.0	ug/L		10/8/2019 23:13
Acenaphthylene	< 10.0	ug/L		10/8/2019 23:13
Acetophenone	< 10.0	ug/L		10/8/2019 23:13
Anthracene	< 10.0	ug/L		10/8/2019 23:13
Atrazine	< 10.0	ug/L		10/8/2019 23:13

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-10X		
Lab Sample ID:	194905-03	Date Sampled:	10/4/2019
Matrix:	Groundwater	Date Received:	10/7/2019
Benzaldehyde	< 10.0	ug/L	10/8/2019 23:13
Benzo (a) anthracene	< 10.0	ug/L	10/8/2019 23:13
Benzo (a) pyrene	< 10.0	ug/L	10/8/2019 23:13
Benzo (b) fluoranthene	< 10.0	ug/L	10/8/2019 23:13
Benzo (g,h,i) perylene	< 10.0	ug/L	10/8/2019 23:13
Benzo (k) fluoranthene	< 10.0	ug/L	10/8/2019 23:13
Bis (2-chloroethoxy) methane	< 10.0	ug/L	10/8/2019 23:13
Bis (2-chloroethyl) ether	< 10.0	ug/L	10/8/2019 23:13
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	10/8/2019 23:13
Butylbenzylphthalate	< 10.0	ug/L	10/8/2019 23:13
Caprolactam	< 10.0	ug/L	10/8/2019 23:13
Carbazole	< 10.0	ug/L	10/8/2019 23:13
Chrysene	< 10.0	ug/L	10/8/2019 23:13
Dibenz (a,h) anthracene	< 10.0	ug/L	10/8/2019 23:13
Dibenzofuran	< 10.0	ug/L	10/8/2019 23:13
Diethyl phthalate	< 10.0	ug/L	10/8/2019 23:13
Dimethyl phthalate	< 20.0	ug/L	10/8/2019 23:13
Di-n-butyl phthalate	< 10.0	ug/L	10/8/2019 23:13
Di-n-octylphthalate	< 10.0	ug/L	10/8/2019 23:13
Fluoranthene	< 10.0	ug/L	10/8/2019 23:13
Fluorene	< 10.0	ug/L	10/8/2019 23:13
Hexachlorobenzene	< 10.0	ug/L	10/8/2019 23:13
Hexachlorobutadiene	< 10.0	ug/L	10/8/2019 23:13
Hexachlorocyclopentadiene	< 10.0	ug/L	10/8/2019 23:13
Hexachloroethane	< 10.0	ug/L	10/8/2019 23:13

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-10X	Date Sampled:	10/4/2019
Lab Sample ID:	194905-03	Date Received:	10/7/2019
Matrix:	Groundwater		

Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	10/8/2019 23:13
Isophorone	< 10.0	ug/L	10/8/2019 23:13
Naphthalene	< 10.0	ug/L	10/8/2019 23:13
Nitrobenzene	< 10.0	ug/L	10/8/2019 23:13
N-Nitroso-di-n-propylamine	< 10.0	ug/L	10/8/2019 23:13
N-Nitrosodiphenylamine	< 10.0	ug/L	10/8/2019 23:13
Phenanthrene	< 10.0	ug/L	10/8/2019 23:13
Pyrene	< 10.0	ug/L	10/8/2019 23:13

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	49.1	36.3 - 95.4		10/8/2019 23:13
Nitrobenzene-d5	70.8	52.1 - 98.9		10/8/2019 23:13
Terphenyl-d14	84.4	59.6 - 112		10/8/2019 23:13

Method Reference(s): EPA 8270D  
EPA 3510C  
Preparation Date: 10/8/2019  
Data File: B40634.D

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-10X

Lab Sample ID: 194905-03

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		10/16/2019 16:58
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		10/16/2019 16:58
1,1,2-Trichloroethane	< 2.00	ug/L		10/16/2019 16:58
1,1-Dichloroethane	< 2.00	ug/L		10/16/2019 16:58
1,1-Dichloroethene	< 2.00	ug/L		10/16/2019 16:58
1,2,3-Trichlorobenzene	< 5.00	ug/L		10/16/2019 16:58
1,2,4-Trichlorobenzene	< 5.00	ug/L		10/16/2019 16:58
1,2,4-Trimethylbenzene	< 2.00	ug/L		10/16/2019 16:58
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		10/16/2019 16:58
1,2-Dibromoethane	< 2.00	ug/L		10/16/2019 16:58
1,2-Dichlorobenzene	< 2.00	ug/L		10/16/2019 16:58
1,2-Dichloroethane	< 2.00	ug/L		10/16/2019 16:58
1,2-Dichloropropane	< 2.00	ug/L		10/16/2019 16:58
1,3,5-Trimethylbenzene	< 2.00	ug/L		10/16/2019 16:58
1,3-Dichlorobenzene	< 2.00	ug/L		10/16/2019 16:58
1,4-Dichlorobenzene	< 2.00	ug/L		10/16/2019 16:58
1,4-Dioxane	< 20.0	ug/L		10/16/2019 16:58
2-Butanone	< 10.0	ug/L		10/16/2019 16:58
2-Hexanone	< 5.00	ug/L		10/16/2019 16:58
4-Methyl-2-pentanone	< 5.00	ug/L		10/16/2019 16:58
Acetone	< 10.0	ug/L		10/16/2019 16:58
Benzene	< 1.00	ug/L		10/16/2019 16:58
Bromochloromethane	< 5.00	ug/L		10/16/2019 16:58

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-10X			
Lab Sample ID:	194905-03		Date Sampled:	10/4/2019
Matrix:	Groundwater		Date Received:	10/7/2019
Bromodichloromethane	< 2.00	ug/L	10/16/2019	16:58
Bromoform	< 5.00	ug/L	10/16/2019	16:58
Bromomethane	< 2.00	ug/L	10/16/2019	16:58
Carbon disulfide	< 2.00	ug/L	10/16/2019	16:58
Carbon Tetrachloride	< 2.00	ug/L	10/16/2019	16:58
Chlorobenzene	< 2.00	ug/L	10/16/2019	16:58
Chloroethane	< 2.00	ug/L	10/16/2019	16:58
Chloroform	< 2.00	ug/L	10/16/2019	16:58
Chloromethane	< 2.00	ug/L	10/16/2019	16:58
cis-1,2-Dichloroethene	< 2.00	ug/L	10/16/2019	16:58
cis-1,3-Dichloropropene	< 2.00	ug/L	10/16/2019	16:58
Cyclohexane	< 10.0	ug/L	10/16/2019	16:58
Dibromochloromethane	< 2.00	ug/L	10/16/2019	16:58
Dichlorodifluoromethane	< 2.00	ug/L	10/16/2019	16:58
Ethylbenzene	< 2.00	ug/L	10/16/2019	16:58
Freon 113	< 2.00	ug/L	10/16/2019	16:58
Isopropylbenzene	< 2.00	ug/L	10/16/2019	16:58
m,p-Xylene	< 2.00	ug/L	10/16/2019	16:58
Methyl acetate	< 2.00	ug/L	10/16/2019	16:58
Methyl tert-butyl Ether	11.8	ug/L	10/16/2019	16:58
Methylcyclohexane	< 2.00	ug/L	10/16/2019	16:58
Methylene chloride	< 5.00	ug/L	10/16/2019	16:58
Naphthalene	< 5.00	ug/L	10/16/2019	16:58
n-Butylbenzene	< 2.00	ug/L	10/16/2019	16:58
n-Propylbenzene	< 2.00	ug/L	10/16/2019	16:58

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

<b>Sample Identifier:</b>		MW-10X			
<b>Lab Sample ID:</b>		194905-03		<b>Date Sampled:</b>	10/4/2019
<b>Matrix:</b>		Groundwater		<b>Date Received:</b>	10/7/2019
<hr/>					
o-Xylene	< 2.00	ug/L		10/16/2019	16:58
p-Isopropyltoluene	< 2.00	ug/L		10/16/2019	16:58
sec-Butylbenzene	< 2.00	ug/L		10/16/2019	16:58
Styrene	< 5.00	ug/L		10/16/2019	16:58
tert-Butylbenzene	< 2.00	ug/L		10/16/2019	16:58
Tetrachloroethene	< 2.00	ug/L		10/16/2019	16:58
Toluene	< 2.00	ug/L		10/16/2019	16:58
trans-1,2-Dichloroethene	< 2.00	ug/L		10/16/2019	16:58
trans-1,3-Dichloropropene	< 2.00	ug/L		10/16/2019	16:58
Trichloroethene	< 2.00	ug/L		10/16/2019	16:58
Trichlorofluoromethane	< 2.00	ug/L		10/16/2019	16:58
Vinyl chloride	< 2.00	ug/L		10/16/2019	16:58
<hr/>					
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>113</b>	70.5 - 135		10/16/2019 16:58
4-Bromofluorobenzene		<b>84.9</b>	62 - 127		10/16/2019 16:58
Pentafluorobenzene		<b>93.2</b>	87 - 113		10/16/2019 16:58
Toluene-D8		<b>93.6</b>	80.8 - 115		10/16/2019 16:58

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x65354.D

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-101

Lab Sample ID: 194905-04

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	0.00315	mg/L		10/9/2019 09:10

Method Reference(s): EPA 7470A

Preparation Date: 10/8/2019

Data File: Hg191009A

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-101

Lab Sample ID: 194905-04

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	1.17	mg/L		10/9/2019 20:36
Antimony	< 0.0600	mg/L		10/9/2019 20:36
Arsenic	< 0.0100	mg/L		10/11/2019 16:08
Barium	0.155	mg/L		10/9/2019 20:36
Beryllium	< 0.00500	mg/L		10/9/2019 20:36
Cadmium	< 0.00500	mg/L		10/9/2019 20:36
Calcium	116	mg/L		10/9/2019 20:36
Chromium	< 0.0100	mg/L		10/9/2019 20:36
Cobalt	< 0.0500	mg/L		10/9/2019 20:36
Copper	0.0329	mg/L	J	10/11/2019 16:08
Iron	10.5	mg/L		10/9/2019 20:36
Lead	0.173	mg/L		10/9/2019 20:36
Magnesium	27.6	mg/L		10/9/2019 20:36
Manganese	0.534	mg/L		10/9/2019 20:36
Nickel	< 0.0400	mg/L		10/9/2019 20:36
Potassium	8.29	mg/L		10/9/2019 20:36
Selenium	< 0.0200	mg/L		10/11/2019 16:08
Silver	< 0.0100	mg/L		10/9/2019 20:36
Sodium	149	mg/L		10/9/2019 20:36
Thallium	< 0.0250	mg/L		10/11/2019 16:08
Vanadium	< 0.0250	mg/L		10/9/2019 20:36
Zinc	0.188	mg/L		10/9/2019 20:36

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Report Prepared Thursday, October 17, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 194905

**Client:** **Bergmann Associates**

**Project Reference:** VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

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**Sample Identifier:** MW-101

**Lab Sample ID:** 194905-04

**Date Sampled:** 10/4/2019

**Matrix:** Groundwater

**Date Received:** 10/7/2019

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 10/8/2019

**Data File:** 191009B

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*Report Prepared Thursday, October 17, 2019*



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-101

Lab Sample ID: 194905-04

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**Semi-Volatile Organics (Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		10/8/2019 23:42
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		10/8/2019 23:42
1,2,4-Trichlorobenzene	< 10.0	ug/L		10/8/2019 23:42
1,2-Dichlorobenzene	< 10.0	ug/L		10/8/2019 23:42
1,3-Dichlorobenzene	< 10.0	ug/L		10/8/2019 23:42
1,4-Dichlorobenzene	< 10.0	ug/L		10/8/2019 23:42
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		10/8/2019 23:42
2,4-Dinitrotoluene	< 10.0	ug/L		10/8/2019 23:42
2,6-Dinitrotoluene	< 10.0	ug/L		10/8/2019 23:42
2-Chloronaphthalene	< 10.0	ug/L		10/8/2019 23:42
2-Methylnaphthalene	< 10.0	ug/L		10/8/2019 23:42
2-Nitroaniline	< 20.0	ug/L		10/8/2019 23:42
3,3'-Dichlorobenzidine	< 10.0	ug/L		10/8/2019 23:42
3-Nitroaniline	< 20.0	ug/L		10/8/2019 23:42
4-Bromophenyl phenyl ether	< 10.0	ug/L		10/8/2019 23:42
4-Chloroaniline	< 10.0	ug/L		10/8/2019 23:42
4-Chlorophenyl phenyl ether	< 10.0	ug/L		10/8/2019 23:42
4-Nitroaniline	< 20.0	ug/L		10/8/2019 23:42
Acenaphthene	< 10.0	ug/L		10/8/2019 23:42
Acenaphthylene	< 10.0	ug/L		10/8/2019 23:42
Acetophenone	< 10.0	ug/L		10/8/2019 23:42
Anthracene	< 10.0	ug/L		10/8/2019 23:42
Atrazine	< 10.0	ug/L		10/8/2019 23:42

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-101		
Lab Sample ID:	194905-04	Date Sampled:	10/4/2019
Matrix:	Groundwater	Date Received:	10/7/2019
Benzaldehyde	< 10.0	ug/L	10/8/2019 23:42
Benzo (a) anthracene	< 10.0	ug/L	10/8/2019 23:42
Benzo (a) pyrene	< 10.0	ug/L	10/8/2019 23:42
Benzo (b) fluoranthene	< 10.0	ug/L	10/8/2019 23:42
Benzo (g,h,i) perylene	< 10.0	ug/L	10/8/2019 23:42
Benzo (k) fluoranthene	< 10.0	ug/L	10/8/2019 23:42
Bis (2-chloroethoxy) methane	< 10.0	ug/L	10/8/2019 23:42
Bis (2-chloroethyl) ether	< 10.0	ug/L	10/8/2019 23:42
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	10/8/2019 23:42
Butylbenzylphthalate	< 10.0	ug/L	10/8/2019 23:42
Caprolactam	< 10.0	ug/L	10/8/2019 23:42
Carbazole	< 10.0	ug/L	10/8/2019 23:42
Chrysene	< 10.0	ug/L	10/8/2019 23:42
Dibenz (a,h) anthracene	< 10.0	ug/L	10/8/2019 23:42
Dibenzofuran	< 10.0	ug/L	10/8/2019 23:42
Diethyl phthalate	< 10.0	ug/L	10/8/2019 23:42
Dimethyl phthalate	< 20.0	ug/L	10/8/2019 23:42
Di-n-butyl phthalate	< 10.0	ug/L	10/8/2019 23:42
Di-n-octylphthalate	< 10.0	ug/L	10/8/2019 23:42
Fluoranthene	< 10.0	ug/L	10/8/2019 23:42
Fluorene	< 10.0	ug/L	10/8/2019 23:42
Hexachlorobenzene	< 10.0	ug/L	10/8/2019 23:42
Hexachlorobutadiene	< 10.0	ug/L	10/8/2019 23:42
Hexachlorocyclopentadiene	< 10.0	ug/L	10/8/2019 23:42
Hexachloroethane	< 10.0	ug/L	10/8/2019 23:42

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-101

Lab Sample ID: 194905-04

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	10/8/2019 23:42
Isophorone	< 10.0	ug/L	10/8/2019 23:42
Naphthalene	< 10.0	ug/L	10/8/2019 23:42
Nitrobenzene	< 10.0	ug/L	10/8/2019 23:42
N-Nitroso-di-n-propylamine	< 10.0	ug/L	10/8/2019 23:42
N-Nitrosodiphenylamine	< 10.0	ug/L	10/8/2019 23:42
Phenanthrene	< 10.0	ug/L	10/8/2019 23:42
Pyrene	< 10.0	ug/L	10/8/2019 23:42

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	43.0	36.3 - 95.4		10/8/2019 23:42
Nitrobenzene-d5	67.7	52.1 - 98.9		10/8/2019 23:42
Terphenyl-d14	73.5	59.6 - 112		10/8/2019 23:42

Method Reference(s): EPA 8270D

EPA 3510C

Preparation Date: 10/8/2019

Data File: B40635.D

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-101

Lab Sample ID: 194905-04

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 2.00	ug/L		10/16/2019 16:36
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		10/16/2019 16:36
1,1,2-Trichloroethane	< 2.00	ug/L		10/16/2019 16:36
1,1-Dichloroethane	< 2.00	ug/L		10/16/2019 16:36
1,1-Dichloroethene	< 2.00	ug/L		10/16/2019 16:36
1,2,3-Trichlorobenzene	< 5.00	ug/L		10/16/2019 16:36
1,2,4-Trichlorobenzene	< 5.00	ug/L		10/16/2019 16:36
1,2,4-Trimethylbenzene	< 2.00	ug/L		10/16/2019 16:36
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		10/16/2019 16:36
1,2-Dibromoethane	< 2.00	ug/L		10/16/2019 16:36
1,2-Dichlorobenzene	< 2.00	ug/L		10/16/2019 16:36
1,2-Dichloroethane	< 2.00	ug/L		10/16/2019 16:36
1,2-Dichloropropane	< 2.00	ug/L		10/16/2019 16:36
1,3,5-Trimethylbenzene	< 2.00	ug/L		10/16/2019 16:36
1,3-Dichlorobenzene	< 2.00	ug/L		10/16/2019 16:36
1,4-Dichlorobenzene	< 2.00	ug/L		10/16/2019 16:36
1,4-Dioxane	< 20.0	ug/L		10/16/2019 16:36
2-Butanone	< 10.0	ug/L		10/16/2019 16:36
2-Hexanone	< 5.00	ug/L		10/16/2019 16:36
4-Methyl-2-pentanone	< 5.00	ug/L		10/16/2019 16:36
Acetone	< 10.0	ug/L		10/16/2019 16:36
Benzene	< 1.00	ug/L		10/16/2019 16:36
Bromochloromethane	< 5.00	ug/L		10/16/2019 16:36

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-101			
Lab Sample ID:	194905-04		Date Sampled:	10/4/2019
Matrix:	Groundwater		Date Received:	10/7/2019
Bromodichloromethane	< 2.00	ug/L	10/16/2019	16:36
Bromoform	< 5.00	ug/L	10/16/2019	16:36
Bromomethane	< 2.00	ug/L	10/16/2019	16:36
Carbon disulfide	< 2.00	ug/L	10/16/2019	16:36
Carbon Tetrachloride	< 2.00	ug/L	10/16/2019	16:36
Chlorobenzene	< 2.00	ug/L	10/16/2019	16:36
Chloroethane	< 2.00	ug/L	10/16/2019	16:36
Chloroform	< 2.00	ug/L	10/16/2019	16:36
Chloromethane	< 2.00	ug/L	10/16/2019	16:36
cis-1,2-Dichloroethene	< 2.00	ug/L	10/16/2019	16:36
cis-1,3-Dichloropropene	< 2.00	ug/L	10/16/2019	16:36
Cyclohexane	< 10.0	ug/L	10/16/2019	16:36
Dibromochloromethane	< 2.00	ug/L	10/16/2019	16:36
Dichlorodifluoromethane	< 2.00	ug/L	10/16/2019	16:36
Ethylbenzene	< 2.00	ug/L	10/16/2019	16:36
Freon 113	< 2.00	ug/L	10/16/2019	16:36
Isopropylbenzene	< 2.00	ug/L	10/16/2019	16:36
m,p-Xylene	< 2.00	ug/L	10/16/2019	16:36
Methyl acetate	< 2.00	ug/L	10/16/2019	16:36
Methyl tert-butyl Ether	< 2.00	ug/L	10/16/2019	16:36
Methylcyclohexane	< 2.00	ug/L	10/16/2019	16:36
Methylene chloride	< 5.00	ug/L	10/16/2019	16:36
Naphthalene	< 5.00	ug/L	10/16/2019	16:36
n-Butylbenzene	< 2.00	ug/L	10/16/2019	16:36
n-Propylbenzene	< 2.00	ug/L	10/16/2019	16:36

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-101				
Lab Sample ID:	194905-04			Date Sampled:	10/4/2019
Matrix:	Groundwater			Date Received:	10/7/2019
o-Xylene	< 2.00	ug/L		10/16/2019	16:36
p-Isopropyltoluene	< 2.00	ug/L		10/16/2019	16:36
sec-Butylbenzene	< 2.00	ug/L		10/16/2019	16:36
Styrene	< 5.00	ug/L		10/16/2019	16:36
tert-Butylbenzene	< 2.00	ug/L		10/16/2019	16:36
Tetrachloroethene	< 2.00	ug/L		10/16/2019	16:36
Toluene	< 2.00	ug/L		10/16/2019	16:36
trans-1,2-Dichloroethene	< 2.00	ug/L		10/16/2019	16:36
trans-1,3-Dichloropropene	< 2.00	ug/L		10/16/2019	16:36
Trichloroethene	< 2.00	ug/L		10/16/2019	16:36
Trichlorofluoromethane	< 2.00	ug/L		10/16/2019	16:36
Vinyl chloride	< 2.00	ug/L		10/16/2019	16:36
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>111</b>	70.5 - 135		10/16/2019 16:36
4-Bromofluorobenzene		<b>86.3</b>	62 - 127		10/16/2019 16:36
Pentafluorobenzene		<b>93.1</b>	87 - 113		10/16/2019 16:36
Toluene-D8		<b>90.6</b>	80.8 - 115		10/16/2019 16:36

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x65353.D

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Report Prepared Thursday, October 17, 2019



**Lab Project ID:** 194905

**Client:** **Bergmann Associates**

**Project Reference:** VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

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**Sample Identifier:** MWR-101

**Lab Sample ID:** 194905-05

**Date Sampled:** 10/4/2019

**Matrix:** Groundwater

**Date Received:** 10/7/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	<b>0.000174</b>	mg/L	J	10/9/2019 10:05

**Method Reference(s):** EPA 7470A

**Preparation Date:** 10/8/2019

**Data File:** Hg191009A

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*Report Prepared Thursday, October 17, 2019*



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MWR-101

Lab Sample ID: 194905-05

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	3.49	mg/L		10/9/2019 20:40
Antimony	< 0.0600	mg/L		10/9/2019 20:40
Arsenic	< 0.0100	mg/L		10/11/2019 16:12
Barium	< 0.100	mg/L		10/9/2019 20:40
Beryllium	< 0.00500	mg/L		10/9/2019 20:40
Cadmium	< 0.00500	mg/L		10/9/2019 20:40
Calcium	6.46	mg/L		10/9/2019 20:40
Chromium	< 0.0100	mg/L		10/9/2019 20:40
Cobalt	< 0.0500	mg/L		10/9/2019 20:40
Copper	< 0.0400	mg/L		10/11/2019 16:12
Iron	1.83	mg/L		10/9/2019 20:40
Lead	0.0204	mg/L		10/9/2019 20:40
Magnesium	2.05	mg/L	J	10/9/2019 20:40
Manganese	0.0279	mg/L		10/9/2019 20:40
Nickel	< 0.0400	mg/L		10/9/2019 20:40
Potassium	2.58	mg/L		10/9/2019 20:40
Selenium	< 0.0200	mg/L		10/11/2019 16:12
Silver	< 0.0100	mg/L		10/9/2019 20:40
Sodium	210	mg/L		10/9/2019 20:40
Thallium	< 0.0250	mg/L		10/9/2019 20:40
Vanadium	< 0.0250	mg/L		10/9/2019 20:40
Zinc	0.0800	mg/L		10/9/2019 20:40

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Report Prepared Thursday, October 17, 2019



**Lab Project ID:** 194905

**Client:** **Bergmann Associates**

**Project Reference:** VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

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**Sample Identifier:** MWR-101

**Lab Sample ID:** 194905-05

**Date Sampled:** 10/4/2019

**Matrix:** Groundwater

**Date Received:** 10/7/2019

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 10/8/2019

**Data File:** 191009B

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*Report Prepared Thursday, October 17, 2019*



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MWR-101

Lab Sample ID: 194905-05

Matrix: Groundwater

Date Sampled: 10/4/2019

Date Received: 10/7/2019

**Semi-Volatile Organics (Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 9.75	ug/L		10/9/2019 00:10
1,2,4,5-Tetrachlorobenzene	< 9.75	ug/L		10/9/2019 00:10
1,2,4-Trichlorobenzene	< 9.75	ug/L		10/9/2019 00:10
1,2-Dichlorobenzene	< 9.75	ug/L		10/9/2019 00:10
1,3-Dichlorobenzene	< 9.75	ug/L		10/9/2019 00:10
1,4-Dichlorobenzene	< 9.75	ug/L		10/9/2019 00:10
2,2-Oxybis (1-chloropropane)	< 9.75	ug/L		10/9/2019 00:10
2,4-Dinitrotoluene	< 9.75	ug/L		10/9/2019 00:10
2,6-Dinitrotoluene	< 9.75	ug/L		10/9/2019 00:10
2-Chloronaphthalene	< 9.75	ug/L		10/9/2019 00:10
2-Methylnaphthalene	< 9.75	ug/L		10/9/2019 00:10
2-Nitroaniline	< 19.5	ug/L		10/9/2019 00:10
3,3'-Dichlorobenzidine	< 9.75	ug/L		10/9/2019 00:10
3-Nitroaniline	< 19.5	ug/L		10/9/2019 00:10
4-Bromophenyl phenyl ether	< 9.75	ug/L		10/9/2019 00:10
4-Chloroaniline	< 9.75	ug/L		10/9/2019 00:10
4-Chlorophenyl phenyl ether	< 9.75	ug/L		10/9/2019 00:10
4-Nitroaniline	< 19.5	ug/L		10/9/2019 00:10
Acenaphthene	< 9.75	ug/L		10/9/2019 00:10
Acenaphthylene	< 9.75	ug/L		10/9/2019 00:10
Acetophenone	< 9.75	ug/L		10/9/2019 00:10
Anthracene	< 9.75	ug/L		10/9/2019 00:10
Atrazine	< 9.75	ug/L		10/9/2019 00:10

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MWR-101		
Lab Sample ID:	194905-05	Date Sampled:	10/4/2019
Matrix:	Groundwater	Date Received:	10/7/2019
Benzaldehyde	< 9.75	ug/L	10/9/2019 00:10
Benzo (a) anthracene	< 9.75	ug/L	10/9/2019 00:10
Benzo (a) pyrene	< 9.75	ug/L	10/9/2019 00:10
Benzo (b) fluoranthene	< 9.75	ug/L	10/9/2019 00:10
Benzo (g,h,i) perylene	< 9.75	ug/L	10/9/2019 00:10
Benzo (k) fluoranthene	< 9.75	ug/L	10/9/2019 00:10
Bis (2-chloroethoxy) methane	< 9.75	ug/L	10/9/2019 00:10
Bis (2-chloroethyl) ether	< 9.75	ug/L	10/9/2019 00:10
Bis (2-ethylhexyl) phthalate	< 9.75	ug/L	10/9/2019 00:10
Butylbenzylphthalate	< 9.75	ug/L	10/9/2019 00:10
Caprolactam	< 9.75	ug/L	10/9/2019 00:10
Carbazole	< 9.75	ug/L	10/9/2019 00:10
Chrysene	< 9.75	ug/L	10/9/2019 00:10
Dibenz (a,h) anthracene	< 9.75	ug/L	10/9/2019 00:10
Dibenzofuran	< 9.75	ug/L	10/9/2019 00:10
Diethyl phthalate	< 9.75	ug/L	10/9/2019 00:10
Dimethyl phthalate	< 19.5	ug/L	10/9/2019 00:10
Di-n-butyl phthalate	< 9.75	ug/L	10/9/2019 00:10
Di-n-octylphthalate	< 9.75	ug/L	10/9/2019 00:10
Fluoranthene	< 9.75	ug/L	10/9/2019 00:10
Fluorene	< 9.75	ug/L	10/9/2019 00:10
Hexachlorobenzene	< 9.75	ug/L	10/9/2019 00:10
Hexachlorobutadiene	< 9.75	ug/L	10/9/2019 00:10
Hexachlorocyclopentadiene	< 9.75	ug/L	10/9/2019 00:10
Hexachloroethane	< 9.75	ug/L	10/9/2019 00:10

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MWR-101

Lab Sample ID: 194905-05

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

Indeno (1,2,3-cd) pyrene	< 9.75	ug/L	10/9/2019 00:10
Isophorone	< 9.75	ug/L	10/9/2019 00:10
Naphthalene	< 9.75	ug/L	10/9/2019 00:10
Nitrobenzene	< 9.75	ug/L	10/9/2019 00:10
N-Nitroso-di-n-propylamine	< 9.75	ug/L	10/9/2019 00:10
N-Nitrosodiphenylamine	< 9.75	ug/L	10/9/2019 00:10
Phenanthrene	< 9.75	ug/L	10/9/2019 00:10
Pyrene	< 9.75	ug/L	10/9/2019 00:10

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	67.8	36.3 - 95.4		10/9/2019 00:10
Nitrobenzene-d5	77.4	52.1 - 98.9		10/9/2019 00:10
Terphenyl-d14	77.0	59.6 - 112		10/9/2019 00:10

Method Reference(s): EPA 8270D

EPA 3510C

Preparation Date: 10/8/2019

Data File: B40636.D

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MWR-101

Lab Sample ID: 194905-05

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 2.00	ug/L		10/16/2019 16:13
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		10/16/2019 16:13
1,1,2-Trichloroethane	< 2.00	ug/L		10/16/2019 16:13
1,1-Dichloroethane	< 2.00	ug/L		10/16/2019 16:13
1,1-Dichloroethene	< 2.00	ug/L		10/16/2019 16:13
1,2,3-Trichlorobenzene	< 5.00	ug/L		10/16/2019 16:13
1,2,4-Trichlorobenzene	< 5.00	ug/L		10/16/2019 16:13
1,2,4-Trimethylbenzene	< 2.00	ug/L		10/16/2019 16:13
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		10/16/2019 16:13
1,2-Dibromoethane	< 2.00	ug/L		10/16/2019 16:13
1,2-Dichlorobenzene	< 2.00	ug/L		10/16/2019 16:13
1,2-Dichloroethane	< 2.00	ug/L		10/16/2019 16:13
1,2-Dichloropropane	< 2.00	ug/L		10/16/2019 16:13
1,3,5-Trimethylbenzene	< 2.00	ug/L		10/16/2019 16:13
1,3-Dichlorobenzene	< 2.00	ug/L		10/16/2019 16:13
1,4-Dichlorobenzene	< 2.00	ug/L		10/16/2019 16:13
1,4-Dioxane	< 20.0	ug/L		10/16/2019 16:13
2-Butanone	< 10.0	ug/L		10/16/2019 16:13
2-Hexanone	< 5.00	ug/L		10/16/2019 16:13
4-Methyl-2-pentanone	< 5.00	ug/L		10/16/2019 16:13
Acetone	< 10.0	ug/L		10/16/2019 16:13
Benzene	< 1.00	ug/L		10/16/2019 16:13
Bromochloromethane	< 5.00	ug/L		10/16/2019 16:13

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MWR-101			
Lab Sample ID:	194905-05		Date Sampled:	10/4/2019
Matrix:	Groundwater		Date Received:	10/7/2019
Bromodichloromethane	< 2.00	ug/L	10/16/2019	16:13
Bromoform	< 5.00	ug/L	10/16/2019	16:13
Bromomethane	< 2.00	ug/L	10/16/2019	16:13
Carbon disulfide	< 2.00	ug/L	10/16/2019	16:13
Carbon Tetrachloride	< 2.00	ug/L	10/16/2019	16:13
Chlorobenzene	< 2.00	ug/L	10/16/2019	16:13
Chloroethane	< 2.00	ug/L	10/16/2019	16:13
Chloroform	< 2.00	ug/L	10/16/2019	16:13
Chloromethane	< 2.00	ug/L	10/16/2019	16:13
cis-1,2-Dichloroethene	< 2.00	ug/L	10/16/2019	16:13
cis-1,3-Dichloropropene	< 2.00	ug/L	10/16/2019	16:13
Cyclohexane	< 10.0	ug/L	10/16/2019	16:13
Dibromochloromethane	< 2.00	ug/L	10/16/2019	16:13
Dichlorodifluoromethane	< 2.00	ug/L	10/16/2019	16:13
Ethylbenzene	< 2.00	ug/L	10/16/2019	16:13
Freon 113	< 2.00	ug/L	10/16/2019	16:13
Isopropylbenzene	< 2.00	ug/L	10/16/2019	16:13
m,p-Xylene	< 2.00	ug/L	10/16/2019	16:13
Methyl acetate	< 2.00	ug/L	10/16/2019	16:13
Methyl tert-butyl Ether	< 2.00	ug/L	10/16/2019	16:13
Methylcyclohexane	< 2.00	ug/L	10/16/2019	16:13
Methylene chloride	< 5.00	ug/L	10/16/2019	16:13
Naphthalene	< 5.00	ug/L	10/16/2019	16:13
n-Butylbenzene	< 2.00	ug/L	10/16/2019	16:13
n-Propylbenzene	< 2.00	ug/L	10/16/2019	16:13

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

<b>Sample Identifier:</b>		MWR-101			
<b>Lab Sample ID:</b>		194905-05		<b>Date Sampled:</b>	10/4/2019
<b>Matrix:</b>		Groundwater		<b>Date Received:</b>	10/7/2019
<hr/>					
o-Xylene	< 2.00	ug/L		10/16/2019	16:13
p-Isopropyltoluene	< 2.00	ug/L		10/16/2019	16:13
sec-Butylbenzene	< 2.00	ug/L		10/16/2019	16:13
Styrene	< 5.00	ug/L		10/16/2019	16:13
tert-Butylbenzene	< 2.00	ug/L		10/16/2019	16:13
Tetrachloroethene	< 2.00	ug/L		10/16/2019	16:13
Toluene	< 2.00	ug/L		10/16/2019	16:13
trans-1,2-Dichloroethene	< 2.00	ug/L		10/16/2019	16:13
trans-1,3-Dichloropropene	< 2.00	ug/L		10/16/2019	16:13
Trichloroethene	< 2.00	ug/L		10/16/2019	16:13
Trichlorofluoromethane	< 2.00	ug/L		10/16/2019	16:13
Vinyl chloride	< 2.00	ug/L		10/16/2019	16:13
<b>Surrogate</b>	<b>Percent Recovery</b>		<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>106</b>		70.5 - 135		10/16/2019 16:13
4-Bromofluorobenzene	<b>82.1</b>		62 - 127		10/16/2019 16:13
Pentafluorobenzene	<b>91.7</b>		87 - 113		10/16/2019 16:13
Toluene-D8	<b>91.8</b>		80.8 - 115		10/16/2019 16:13

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x65352.D

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Report Prepared Thursday, October 17, 2019



**Lab Project ID:** 194905

**Client:** **Bergmann Associates**

**Project Reference:** VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

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**Sample Identifier:** MW-103

**Lab Sample ID:** 194905-06

**Date Sampled:** 10/4/2019

**Matrix:** Groundwater

**Date Received:** 10/7/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	<b>0.000278</b>	mg/L		10/9/2019 10:07

**Method Reference(s):** EPA 7470A

**Preparation Date:** 10/8/2019

**Data File:** Hg191009A

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*Report Prepared Thursday, October 17, 2019*



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-103

Lab Sample ID: 194905-06

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	0.0948	mg/L	J	10/9/2019 20:45
Antimony	< 0.0600	mg/L		10/9/2019 20:45
Arsenic	< 0.0100	mg/L		10/11/2019 16:16
Barium	0.242	mg/L		10/9/2019 20:45
Beryllium	< 0.00500	mg/L		10/9/2019 20:45
Cadmium	< 0.00500	mg/L		10/9/2019 20:45
Calcium	127	mg/L		10/9/2019 20:45
Chromium	< 0.0100	mg/L		10/9/2019 20:45
Cobalt	< 0.0500	mg/L		10/9/2019 20:45
Copper	0.127	mg/L		10/11/2019 16:16
Iron	3.94	mg/L		10/9/2019 20:45
Lead	0.00796	mg/L	J	10/9/2019 20:45
Magnesium	28.6	mg/L		10/9/2019 20:45
Manganese	0.278	mg/L		10/9/2019 20:45
Nickel	< 0.0400	mg/L		10/9/2019 20:45
Potassium	8.66	mg/L		10/9/2019 20:45
Selenium	< 0.0200	mg/L		10/11/2019 16:16
Silver	< 0.0100	mg/L		10/9/2019 20:45
Sodium	134	mg/L		10/9/2019 20:45
Thallium	< 0.0250	mg/L		10/11/2019 16:16
Vanadium	< 0.0250	mg/L		10/9/2019 20:45
Zinc	0.235	mg/L		10/9/2019 20:45

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Report Prepared Thursday, October 17, 2019



**Lab Project ID:** 194905

**Client:** **Bergmann Associates**

**Project Reference:** VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

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**Sample Identifier:** MW-103

**Lab Sample ID:** 194905-06

**Date Sampled:** 10/4/2019

**Matrix:** Groundwater

**Date Received:** 10/7/2019

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 10/8/2019

**Data File:** 191009B

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*Report Prepared Thursday, October 17, 2019*



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-103

Lab Sample ID: 194905-06

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**Semi-Volatile Organics (Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 9.65	ug/L		10/9/2019 00:39
1,2,4,5-Tetrachlorobenzene	< 9.65	ug/L		10/9/2019 00:39
1,2,4-Trichlorobenzene	< 9.65	ug/L		10/9/2019 00:39
1,2-Dichlorobenzene	< 9.65	ug/L		10/9/2019 00:39
1,3-Dichlorobenzene	< 9.65	ug/L		10/9/2019 00:39
1,4-Dichlorobenzene	< 9.65	ug/L		10/9/2019 00:39
2,2-Oxybis (1-chloropropane)	< 9.65	ug/L		10/9/2019 00:39
2,4-Dinitrotoluene	< 9.65	ug/L		10/9/2019 00:39
2,6-Dinitrotoluene	< 9.65	ug/L		10/9/2019 00:39
2-Chloronaphthalene	< 9.65	ug/L		10/9/2019 00:39
2-Methylnaphthalene	< 9.65	ug/L		10/9/2019 00:39
2-Nitroaniline	< 19.3	ug/L		10/9/2019 00:39
3,3'-Dichlorobenzidine	< 9.65	ug/L		10/9/2019 00:39
3-Nitroaniline	< 19.3	ug/L		10/9/2019 00:39
4-Bromophenyl phenyl ether	< 9.65	ug/L		10/9/2019 00:39
4-Chloroaniline	< 9.65	ug/L		10/9/2019 00:39
4-Chlorophenyl phenyl ether	< 9.65	ug/L		10/9/2019 00:39
4-Nitroaniline	< 19.3	ug/L		10/9/2019 00:39
Acenaphthene	< 9.65	ug/L		10/9/2019 00:39
Acenaphthylene	< 9.65	ug/L		10/9/2019 00:39
Acetophenone	< 9.65	ug/L		10/9/2019 00:39
Anthracene	< 9.65	ug/L		10/9/2019 00:39
Atrazine	< 9.65	ug/L		10/9/2019 00:39

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-103		
Lab Sample ID:	194905-06	Date Sampled:	10/4/2019
Matrix:	Groundwater	Date Received:	10/7/2019
Benzaldehyde	< 9.65	ug/L	10/9/2019 00:39
Benzo (a) anthracene	< 9.65	ug/L	10/9/2019 00:39
Benzo (a) pyrene	< 9.65	ug/L	10/9/2019 00:39
Benzo (b) fluoranthene	< 9.65	ug/L	10/9/2019 00:39
Benzo (g,h,i) perylene	< 9.65	ug/L	10/9/2019 00:39
Benzo (k) fluoranthene	< 9.65	ug/L	10/9/2019 00:39
Bis (2-chloroethoxy) methane	< 9.65	ug/L	10/9/2019 00:39
Bis (2-chloroethyl) ether	< 9.65	ug/L	10/9/2019 00:39
Bis (2-ethylhexyl) phthalate	< 9.65	ug/L	10/9/2019 00:39
Butylbenzylphthalate	< 9.65	ug/L	10/9/2019 00:39
Caprolactam	< 9.65	ug/L	10/9/2019 00:39
Carbazole	< 9.65	ug/L	10/9/2019 00:39
Chrysene	< 9.65	ug/L	10/9/2019 00:39
Dibenz (a,h) anthracene	< 9.65	ug/L	10/9/2019 00:39
Dibenzofuran	< 9.65	ug/L	10/9/2019 00:39
Diethyl phthalate	< 9.65	ug/L	10/9/2019 00:39
Dimethyl phthalate	< 19.3	ug/L	10/9/2019 00:39
Di-n-butyl phthalate	< 9.65	ug/L	10/9/2019 00:39
Di-n-octylphthalate	< 9.65	ug/L	10/9/2019 00:39
Fluoranthene	< 9.65	ug/L	10/9/2019 00:39
Fluorene	< 9.65	ug/L	10/9/2019 00:39
Hexachlorobenzene	< 9.65	ug/L	10/9/2019 00:39
Hexachlorobutadiene	< 9.65	ug/L	10/9/2019 00:39
Hexachlorocyclopentadiene	< 9.65	ug/L	10/9/2019 00:39
Hexachloroethane	< 9.65	ug/L	10/9/2019 00:39

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-103				
Lab Sample ID:	194905-06			Date Sampled:	10/4/2019
Matrix:	Groundwater			Date Received:	10/7/2019
Indeno (1,2,3-cd) pyrene	< 9.65	ug/L		10/9/2019	00:39
Isophorone	< 9.65	ug/L		10/9/2019	00:39
Naphthalene	< 9.65	ug/L		10/9/2019	00:39
Nitrobenzene	< 9.65	ug/L		10/9/2019	00:39
N-Nitroso-di-n-propylamine	< 9.65	ug/L		10/9/2019	00:39
N-Nitrosodiphenylamine	< 9.65	ug/L		10/9/2019	00:39
Phenanthrene	< 9.65	ug/L		10/9/2019	00:39
Pyrene	< 9.65	ug/L		10/9/2019	00:39
<b><u>Surrogate</u></b>	<b><u>Percent Recovery</u></b>	<b><u>Limits</u></b>	<b><u>Outliers</u></b>	<b><u>Date Analyzed</u></b>	
2-Fluorobiphenyl	62.7	36.3 - 95.4		10/9/2019	00:39
Nitrobenzene-d5	74.9	52.1 - 98.9		10/9/2019	00:39
Terphenyl-d14	82.0	59.6 - 112		10/9/2019	00:39
Method Reference(s):	EPA 8270D				
	EPA 3510C				
Preparation Date:	10/8/2019				
Data File:	B40637.D				

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-103

Lab Sample ID: 194905-06

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 2.00	ug/L		10/16/2019 15:51
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		10/16/2019 15:51
1,1,2-Trichloroethane	< 2.00	ug/L		10/16/2019 15:51
1,1-Dichloroethane	< 2.00	ug/L		10/16/2019 15:51
1,1-Dichloroethene	< 2.00	ug/L		10/16/2019 15:51
1,2,3-Trichlorobenzene	< 5.00	ug/L		10/16/2019 15:51
1,2,4-Trichlorobenzene	< 5.00	ug/L		10/16/2019 15:51
1,2,4-Trimethylbenzene	< 2.00	ug/L		10/16/2019 15:51
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		10/16/2019 15:51
1,2-Dibromoethane	< 2.00	ug/L		10/16/2019 15:51
1,2-Dichlorobenzene	< 2.00	ug/L		10/16/2019 15:51
1,2-Dichloroethane	< 2.00	ug/L		10/16/2019 15:51
1,2-Dichloropropane	< 2.00	ug/L		10/16/2019 15:51
1,3,5-Trimethylbenzene	< 2.00	ug/L		10/16/2019 15:51
1,3-Dichlorobenzene	< 2.00	ug/L		10/16/2019 15:51
1,4-Dichlorobenzene	< 2.00	ug/L		10/16/2019 15:51
1,4-Dioxane	< 20.0	ug/L		10/16/2019 15:51
2-Butanone	< 10.0	ug/L		10/16/2019 15:51
2-Hexanone	< 5.00	ug/L		10/16/2019 15:51
4-Methyl-2-pentanone	< 5.00	ug/L		10/16/2019 15:51
Acetone	< 10.0	ug/L		10/16/2019 15:51
Benzene	< 1.00	ug/L		10/16/2019 15:51
Bromochloromethane	< 5.00	ug/L		10/16/2019 15:51

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-103			
Lab Sample ID:	194905-06		Date Sampled:	10/4/2019
Matrix:	Groundwater		Date Received:	10/7/2019
Bromodichloromethane	< 2.00	ug/L		10/16/2019 15:51
Bromoform	< 5.00	ug/L		10/16/2019 15:51
Bromomethane	< 2.00	ug/L		10/16/2019 15:51
Carbon disulfide	< 2.00	ug/L		10/16/2019 15:51
Carbon Tetrachloride	< 2.00	ug/L		10/16/2019 15:51
Chlorobenzene	< 2.00	ug/L		10/16/2019 15:51
Chloroethane	< 2.00	ug/L		10/16/2019 15:51
Chloroform	< 2.00	ug/L		10/16/2019 15:51
Chloromethane	< 2.00	ug/L		10/16/2019 15:51
cis-1,2-Dichloroethene	< 2.00	ug/L		10/16/2019 15:51
cis-1,3-Dichloropropene	< 2.00	ug/L		10/16/2019 15:51
Cyclohexane	< 10.0	ug/L		10/16/2019 15:51
Dibromochloromethane	< 2.00	ug/L		10/16/2019 15:51
Dichlorodifluoromethane	< 2.00	ug/L		10/16/2019 15:51
Ethylbenzene	< 2.00	ug/L		10/16/2019 15:51
Freon 113	< 2.00	ug/L		10/16/2019 15:51
Isopropylbenzene	< 2.00	ug/L		10/16/2019 15:51
m,p-Xylene	< 2.00	ug/L		10/16/2019 15:51
Methyl acetate	< 2.00	ug/L		10/16/2019 15:51
Methyl tert-butyl Ether	< 2.00	ug/L		10/16/2019 15:51
Methylcyclohexane	< 2.00	ug/L		10/16/2019 15:51
Methylene chloride	< 5.00	ug/L		10/16/2019 15:51
Naphthalene	< 5.00	ug/L		10/16/2019 15:51
n-Butylbenzene	< 2.00	ug/L		10/16/2019 15:51
n-Propylbenzene	< 2.00	ug/L		10/16/2019 15:51

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-103				
Lab Sample ID:	194905-06			Date Sampled:	10/4/2019
Matrix:	Groundwater			Date Received:	10/7/2019
o-Xylene	< 2.00	ug/L		10/16/2019	15:51
p-Isopropyltoluene	< 2.00	ug/L		10/16/2019	15:51
sec-Butylbenzene	< 2.00	ug/L		10/16/2019	15:51
Styrene	< 5.00	ug/L		10/16/2019	15:51
tert-Butylbenzene	< 2.00	ug/L		10/16/2019	15:51
Tetrachloroethene	< 2.00	ug/L		10/16/2019	15:51
Toluene	< 2.00	ug/L		10/16/2019	15:51
trans-1,2-Dichloroethene	< 2.00	ug/L		10/16/2019	15:51
trans-1,3-Dichloropropene	< 2.00	ug/L		10/16/2019	15:51
Trichloroethene	< 2.00	ug/L		10/16/2019	15:51
Trichlorofluoromethane	< 2.00	ug/L		10/16/2019	15:51
Vinyl chloride	< 2.00	ug/L		10/16/2019	15:51
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>115</b>	70.5 - 135		10/16/2019 15:51
4-Bromofluorobenzene		<b>85.8</b>	62 - 127		10/16/2019 15:51
Pentafluorobenzene		<b>95.8</b>	87 - 113		10/16/2019 15:51
Toluene-D8		<b>97.4</b>	80.8 - 115		10/16/2019 15:51

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x65351.D

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Report Prepared Thursday, October 17, 2019



**Lab Project ID:** 194905

**Client:** **Bergmann Associates**

**Project Reference:** VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

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**Sample Identifier:** MW-105

**Lab Sample ID:** 194905-07

**Date Sampled:** 10/4/2019

**Matrix:** Groundwater

**Date Received:** 10/7/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		10/9/2019 09:16

**Method Reference(s):** EPA 7470A

**Preparation Date:** 10/8/2019

**Data File:** Hg191009A

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*Report Prepared Thursday, October 17, 2019*



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-105

Lab Sample ID: 194905-07

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	<b>0.387</b>	mg/L		10/9/2019 20:49
Antimony	< 0.0600	mg/L		10/9/2019 20:49
Arsenic	< 0.0100	mg/L		10/11/2019 16:21
Barium	< 0.100	mg/L		10/9/2019 20:49
Beryllium	< 0.00500	mg/L		10/9/2019 20:49
Cadmium	< 0.00500	mg/L		10/9/2019 20:49
Calcium	<b>110</b>	mg/L		10/9/2019 20:49
Chromium	< 0.0100	mg/L		10/9/2019 20:49
Cobalt	< 0.0500	mg/L		10/9/2019 20:49
Copper	< 0.0400	mg/L		10/11/2019 16:21
Iron	<b>1.01</b>	mg/L		10/9/2019 20:49
Lead	< 0.0100	mg/L		10/9/2019 20:49
Magnesium	<b>106</b>	mg/L		10/9/2019 20:49
Manganese	<b>0.0793</b>	mg/L		10/9/2019 20:49
Nickel	< 0.0400	mg/L		10/9/2019 20:49
Potassium	<b>9.97</b>	mg/L		10/9/2019 20:49
Selenium	< 0.0200	mg/L		10/11/2019 16:21
Silver	< 0.0100	mg/L		10/9/2019 20:49
Sodium	<b>87.3</b>	mg/L		10/9/2019 20:49
Thallium	< 0.0250	mg/L		10/11/2019 16:21
Vanadium	< 0.0250	mg/L		10/9/2019 20:49
Zinc	< 0.0600	mg/L		10/9/2019 20:49

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Report Prepared Thursday, October 17, 2019



**Lab Project ID:** 194905

**Client:** **Bergmann Associates**

**Project Reference:** VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

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**Sample Identifier:** MW-105

**Lab Sample ID:** 194905-07

**Date Sampled:** 10/4/2019

**Matrix:** Groundwater

**Date Received:** 10/7/2019

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 10/8/2019

**Data File:** 191009B

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*Report Prepared Thursday, October 17, 2019*



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-105

Lab Sample ID: 194905-07

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**Semi-Volatile Organics (Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		10/9/2019 01:08
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		10/9/2019 01:08
1,2,4-Trichlorobenzene	< 10.0	ug/L		10/9/2019 01:08
1,2-Dichlorobenzene	< 10.0	ug/L		10/9/2019 01:08
1,3-Dichlorobenzene	< 10.0	ug/L		10/9/2019 01:08
1,4-Dichlorobenzene	< 10.0	ug/L		10/9/2019 01:08
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		10/9/2019 01:08
2,4-Dinitrotoluene	< 10.0	ug/L		10/9/2019 01:08
2,6-Dinitrotoluene	< 10.0	ug/L		10/9/2019 01:08
2-Chloronaphthalene	< 10.0	ug/L		10/9/2019 01:08
2-Methylnaphthalene	< 10.0	ug/L		10/9/2019 01:08
2-Nitroaniline	< 20.0	ug/L		10/9/2019 01:08
3,3'-Dichlorobenzidine	< 10.0	ug/L		10/9/2019 01:08
3-Nitroaniline	< 20.0	ug/L		10/9/2019 01:08
4-Bromophenyl phenyl ether	< 10.0	ug/L		10/9/2019 01:08
4-Chloroaniline	< 10.0	ug/L		10/9/2019 01:08
4-Chlorophenyl phenyl ether	< 10.0	ug/L		10/9/2019 01:08
4-Nitroaniline	< 20.0	ug/L		10/9/2019 01:08
Acenaphthene	< 10.0	ug/L		10/9/2019 01:08
Acenaphthylene	< 10.0	ug/L		10/9/2019 01:08
Acetophenone	< 10.0	ug/L		10/9/2019 01:08
Anthracene	< 10.0	ug/L		10/9/2019 01:08
Atrazine	< 10.0	ug/L		10/9/2019 01:08

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-105		
Lab Sample ID:	194905-07	Date Sampled:	10/4/2019
Matrix:	Groundwater	Date Received:	10/7/2019
Benzaldehyde	< 10.0	ug/L	10/9/2019 01:08
Benzo (a) anthracene	< 10.0	ug/L	10/9/2019 01:08
Benzo (a) pyrene	< 10.0	ug/L	10/9/2019 01:08
Benzo (b) fluoranthene	< 10.0	ug/L	10/9/2019 01:08
Benzo (g,h,i) perylene	< 10.0	ug/L	10/9/2019 01:08
Benzo (k) fluoranthene	< 10.0	ug/L	10/9/2019 01:08
Bis (2-chloroethoxy) methane	< 10.0	ug/L	10/9/2019 01:08
Bis (2-chloroethyl) ether	< 10.0	ug/L	10/9/2019 01:08
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	10/9/2019 01:08
Butylbenzylphthalate	< 10.0	ug/L	10/9/2019 01:08
Caprolactam	< 10.0	ug/L	10/9/2019 01:08
Carbazole	< 10.0	ug/L	10/9/2019 01:08
Chrysene	< 10.0	ug/L	10/9/2019 01:08
Dibenz (a,h) anthracene	< 10.0	ug/L	10/9/2019 01:08
Dibenzofuran	< 10.0	ug/L	10/9/2019 01:08
Diethyl phthalate	< 10.0	ug/L	10/9/2019 01:08
Dimethyl phthalate	< 20.0	ug/L	10/9/2019 01:08
Di-n-butyl phthalate	< 10.0	ug/L	10/9/2019 01:08
Di-n-octylphthalate	< 10.0	ug/L	10/9/2019 01:08
Fluoranthene	< 10.0	ug/L	10/9/2019 01:08
Fluorene	< 10.0	ug/L	10/9/2019 01:08
Hexachlorobenzene	< 10.0	ug/L	10/9/2019 01:08
Hexachlorobutadiene	< 10.0	ug/L	10/9/2019 01:08
Hexachlorocyclopentadiene	< 10.0	ug/L	10/9/2019 01:08
Hexachloroethane	< 10.0	ug/L	10/9/2019 01:08

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-105

Lab Sample ID: 194905-07

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	10/9/2019	01:08
Isophorone	< 10.0	ug/L	10/9/2019	01:08
Naphthalene	< 10.0	ug/L	10/9/2019	01:08
Nitrobenzene	< 10.0	ug/L	10/9/2019	01:08
N-Nitroso-di-n-propylamine	< 10.0	ug/L	10/9/2019	01:08
N-Nitrosodiphenylamine	< 10.0	ug/L	10/9/2019	01:08
Phenanthrene	< 10.0	ug/L	10/9/2019	01:08
Pyrene	< 10.0	ug/L	10/9/2019	01:08

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	49.0	36.3 - 95.4		10/9/2019 01:08
Nitrobenzene-d5	72.5	52.1 - 98.9		10/9/2019 01:08
Terphenyl-d14	75.7	59.6 - 112		10/9/2019 01:08

Method Reference(s): EPA 8270D

EPA 3510C

Preparation Date: 10/8/2019

Data File: B40638.D

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-105

Lab Sample ID: 194905-07

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 2.00	ug/L		10/16/2019 15:29
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		10/16/2019 15:29
1,1,2-Trichloroethane	< 2.00	ug/L		10/16/2019 15:29
1,1-Dichloroethane	< 2.00	ug/L		10/16/2019 15:29
1,1-Dichloroethene	< 2.00	ug/L		10/16/2019 15:29
1,2,3-Trichlorobenzene	< 5.00	ug/L		10/16/2019 15:29
1,2,4-Trichlorobenzene	< 5.00	ug/L		10/16/2019 15:29
1,2,4-Trimethylbenzene	< 2.00	ug/L		10/16/2019 15:29
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		10/16/2019 15:29
1,2-Dibromoethane	< 2.00	ug/L		10/16/2019 15:29
1,2-Dichlorobenzene	< 2.00	ug/L		10/16/2019 15:29
1,2-Dichloroethane	< 2.00	ug/L		10/16/2019 15:29
1,2-Dichloropropane	< 2.00	ug/L		10/16/2019 15:29
1,3,5-Trimethylbenzene	< 2.00	ug/L		10/16/2019 15:29
1,3-Dichlorobenzene	< 2.00	ug/L		10/16/2019 15:29
1,4-Dichlorobenzene	< 2.00	ug/L		10/16/2019 15:29
1,4-Dioxane	< 20.0	ug/L		10/16/2019 15:29
2-Butanone	< 10.0	ug/L		10/16/2019 15:29
2-Hexanone	< 5.00	ug/L		10/16/2019 15:29
4-Methyl-2-pentanone	< 5.00	ug/L		10/16/2019 15:29
Acetone	< 10.0	ug/L		10/16/2019 15:29
Benzene	< 1.00	ug/L		10/16/2019 15:29
Bromochloromethane	< 5.00	ug/L		10/16/2019 15:29

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-105			
Lab Sample ID:	194905-07		Date Sampled:	10/4/2019
Matrix:	Groundwater		Date Received:	10/7/2019
Bromodichloromethane	< 2.00	ug/L	10/16/2019	15:29
Bromoform	< 5.00	ug/L	10/16/2019	15:29
Bromomethane	< 2.00	ug/L	10/16/2019	15:29
Carbon disulfide	< 2.00	ug/L	10/16/2019	15:29
Carbon Tetrachloride	< 2.00	ug/L	10/16/2019	15:29
Chlorobenzene	< 2.00	ug/L	10/16/2019	15:29
Chloroethane	< 2.00	ug/L	10/16/2019	15:29
Chloroform	< 2.00	ug/L	10/16/2019	15:29
Chloromethane	< 2.00	ug/L	10/16/2019	15:29
cis-1,2-Dichloroethene	< 2.00	ug/L	10/16/2019	15:29
cis-1,3-Dichloropropene	< 2.00	ug/L	10/16/2019	15:29
Cyclohexane	< 10.0	ug/L	10/16/2019	15:29
Dibromochloromethane	< 2.00	ug/L	10/16/2019	15:29
Dichlorodifluoromethane	< 2.00	ug/L	10/16/2019	15:29
Ethylbenzene	< 2.00	ug/L	10/16/2019	15:29
Freon 113	< 2.00	ug/L	10/16/2019	15:29
Isopropylbenzene	< 2.00	ug/L	10/16/2019	15:29
m,p-Xylene	< 2.00	ug/L	10/16/2019	15:29
Methyl acetate	< 2.00	ug/L	10/16/2019	15:29
Methyl tert-butyl Ether	< 2.00	ug/L	10/16/2019	15:29
Methylcyclohexane	< 2.00	ug/L	10/16/2019	15:29
Methylene chloride	< 5.00	ug/L	10/16/2019	15:29
Naphthalene	< 5.00	ug/L	10/16/2019	15:29
n-Butylbenzene	< 2.00	ug/L	10/16/2019	15:29
n-Propylbenzene	< 2.00	ug/L	10/16/2019	15:29

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

<b>Sample Identifier:</b>		MW-105			
<b>Lab Sample ID:</b>		194905-07		<b>Date Sampled:</b>	10/4/2019
<b>Matrix:</b>		Groundwater		<b>Date Received:</b>	10/7/2019
<hr/>					
o-Xylene	< 2.00	ug/L		10/16/2019	15:29
p-Isopropyltoluene	< 2.00	ug/L		10/16/2019	15:29
sec-Butylbenzene	< 2.00	ug/L		10/16/2019	15:29
Styrene	< 5.00	ug/L		10/16/2019	15:29
tert-Butylbenzene	< 2.00	ug/L		10/16/2019	15:29
Tetrachloroethene	< 2.00	ug/L		10/16/2019	15:29
Toluene	< 2.00	ug/L		10/16/2019	15:29
trans-1,2-Dichloroethene	< 2.00	ug/L		10/16/2019	15:29
trans-1,3-Dichloropropene	< 2.00	ug/L		10/16/2019	15:29
Trichloroethene	< 2.00	ug/L		10/16/2019	15:29
Trichlorofluoromethane	< 2.00	ug/L		10/16/2019	15:29
Vinyl chloride	< 2.00	ug/L		10/16/2019	15:29
<hr/>					
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>110</b>	70.5 - 135		10/16/2019 15:29
4-Bromofluorobenzene		<b>85.1</b>	62 - 127		10/16/2019 15:29
Pentafluorobenzene		<b>96.5</b>	87 - 113		10/16/2019 15:29
Toluene-D8		<b>93.7</b>	80.8 - 115		10/16/2019 15:29

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x65350.D

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-106

Lab Sample ID: 194905-08

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	< 0.000200	mg/L		10/9/2019 09:18

Method Reference(s): EPA 7470A

Preparation Date: 10/8/2019

Data File: Hg191009A

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-106

Lab Sample ID: 194905-08

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	<b>0.860</b>	mg/L		10/9/2019 20:53
Antimony	< 0.0600	mg/L		10/9/2019 20:53
Arsenic	< 0.0100	mg/L		10/11/2019 16:25
Barium	<b>0.152</b>	mg/L		10/9/2019 20:53
Beryllium	< 0.00500	mg/L		10/9/2019 20:53
Cadmium	< 0.00500	mg/L		10/9/2019 20:53
Calcium	<b>116</b>	mg/L		10/9/2019 20:53
Chromium	< 0.0100	mg/L		10/9/2019 20:53
Cobalt	< 0.0500	mg/L		10/9/2019 20:53
Copper	< 0.0400	mg/L		10/11/2019 16:25
Iron	<b>3.74</b>	mg/L		10/9/2019 20:53
Lead	<b>0.0149</b>	mg/L		10/9/2019 20:53
Magnesium	<b>30.7</b>	mg/L		10/9/2019 20:53
Manganese	<b>0.405</b>	mg/L		10/9/2019 20:53
Nickel	< 0.0400	mg/L		10/9/2019 20:53
Potassium	<b>5.80</b>	mg/L		10/9/2019 20:53
Selenium	< 0.0200	mg/L		10/11/2019 16:25
Silver	< 0.0100	mg/L		10/9/2019 20:53
Sodium	<b>109</b>	mg/L		10/9/2019 20:53
Thallium	< 0.0250	mg/L		10/9/2019 20:53
Vanadium	< 0.0250	mg/L		10/9/2019 20:53
Zinc	<b>1.80</b>	mg/L		10/9/2019 20:53

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Report Prepared Thursday, October 17, 2019



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 194905

**Client:** **Bergmann Associates**

**Project Reference:** VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

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**Sample Identifier:** MW-106

**Lab Sample ID:** 194905-08

**Date Sampled:** 10/4/2019

**Matrix:** Groundwater

**Date Received:** 10/7/2019

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 10/8/2019

**Data File:** 191009B

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*Report Prepared Thursday, October 17, 2019*



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-106

Lab Sample ID: 194905-08

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**Semi-Volatile Organics (Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		10/9/2019 01:37
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		10/9/2019 01:37
1,2,4-Trichlorobenzene	< 10.0	ug/L		10/9/2019 01:37
1,2-Dichlorobenzene	< 10.0	ug/L		10/9/2019 01:37
1,3-Dichlorobenzene	< 10.0	ug/L		10/9/2019 01:37
1,4-Dichlorobenzene	< 10.0	ug/L		10/9/2019 01:37
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		10/9/2019 01:37
2,4-Dinitrotoluene	< 10.0	ug/L		10/9/2019 01:37
2,6-Dinitrotoluene	< 10.0	ug/L		10/9/2019 01:37
2-Chloronaphthalene	< 10.0	ug/L		10/9/2019 01:37
2-Methylnaphthalene	< 10.0	ug/L		10/9/2019 01:37
2-Nitroaniline	< 20.0	ug/L		10/9/2019 01:37
3,3'-Dichlorobenzidine	< 10.0	ug/L		10/9/2019 01:37
3-Nitroaniline	< 20.0	ug/L		10/9/2019 01:37
4-Bromophenyl phenyl ether	< 10.0	ug/L		10/9/2019 01:37
4-Chloroaniline	< 10.0	ug/L		10/9/2019 01:37
4-Chlorophenyl phenyl ether	< 10.0	ug/L		10/9/2019 01:37
4-Nitroaniline	< 20.0	ug/L		10/9/2019 01:37
Acenaphthene	< 10.0	ug/L		10/9/2019 01:37
Acenaphthylene	< 10.0	ug/L		10/9/2019 01:37
Acetophenone	< 10.0	ug/L		10/9/2019 01:37
Anthracene	< 10.0	ug/L		10/9/2019 01:37
Atrazine	< 10.0	ug/L		10/9/2019 01:37

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-106		
Lab Sample ID:	194905-08	Date Sampled:	10/4/2019
Matrix:	Groundwater	Date Received:	10/7/2019
Benzaldehyde	< 10.0	ug/L	10/9/2019 01:37
Benzo (a) anthracene	< 10.0	ug/L	10/9/2019 01:37
Benzo (a) pyrene	< 10.0	ug/L	10/9/2019 01:37
Benzo (b) fluoranthene	< 10.0	ug/L	10/9/2019 01:37
Benzo (g,h,i) perylene	< 10.0	ug/L	10/9/2019 01:37
Benzo (k) fluoranthene	< 10.0	ug/L	10/9/2019 01:37
Bis (2-chloroethoxy) methane	< 10.0	ug/L	10/9/2019 01:37
Bis (2-chloroethyl) ether	< 10.0	ug/L	10/9/2019 01:37
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	10/9/2019 01:37
Butylbenzylphthalate	< 10.0	ug/L	10/9/2019 01:37
Caprolactam	< 10.0	ug/L	10/9/2019 01:37
Carbazole	< 10.0	ug/L	10/9/2019 01:37
Chrysene	< 10.0	ug/L	10/9/2019 01:37
Dibenz (a,h) anthracene	< 10.0	ug/L	10/9/2019 01:37
Dibenzofuran	< 10.0	ug/L	10/9/2019 01:37
Diethyl phthalate	< 10.0	ug/L	10/9/2019 01:37
Dimethyl phthalate	< 20.0	ug/L	10/9/2019 01:37
Di-n-butyl phthalate	< 10.0	ug/L	10/9/2019 01:37
Di-n-octylphthalate	< 10.0	ug/L	10/9/2019 01:37
Fluoranthene	< 10.0	ug/L	10/9/2019 01:37
Fluorene	< 10.0	ug/L	10/9/2019 01:37
Hexachlorobenzene	< 10.0	ug/L	10/9/2019 01:37
Hexachlorobutadiene	< 10.0	ug/L	10/9/2019 01:37
Hexachlorocyclopentadiene	< 10.0	ug/L	10/9/2019 01:37
Hexachloroethane	< 10.0	ug/L	10/9/2019 01:37

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-106	Date Sampled:	10/4/2019
Lab Sample ID:	194905-08	Date Received:	10/7/2019
Matrix:	Groundwater		

Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	10/9/2019 01:37
Isophorone	< 10.0	ug/L	10/9/2019 01:37
Naphthalene	< 10.0	ug/L	10/9/2019 01:37
Nitrobenzene	< 10.0	ug/L	10/9/2019 01:37
N-Nitroso-di-n-propylamine	< 10.0	ug/L	10/9/2019 01:37
N-Nitrosodiphenylamine	< 10.0	ug/L	10/9/2019 01:37
Phenanthrene	< 10.0	ug/L	10/9/2019 01:37
Pyrene	< 10.0	ug/L	10/9/2019 01:37

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
2-Fluorobiphenyl	49.3	36.3 - 95.4		10/9/2019 01:37
Nitrobenzene-d5	68.5	52.1 - 98.9		10/9/2019 01:37
Terphenyl-d14	77.5	59.6 - 112		10/9/2019 01:37

Method Reference(s): EPA 8270D  
EPA 3510C  
Preparation Date: 10/8/2019  
Data File: B40639.D

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-106

Lab Sample ID: 194905-08

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 2.00	ug/L		10/16/2019 15:07
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		10/16/2019 15:07
1,1,2-Trichloroethane	< 2.00	ug/L		10/16/2019 15:07
1,1-Dichloroethane	< 2.00	ug/L		10/16/2019 15:07
1,1-Dichloroethene	< 2.00	ug/L		10/16/2019 15:07
1,2,3-Trichlorobenzene	< 5.00	ug/L		10/16/2019 15:07
1,2,4-Trichlorobenzene	< 5.00	ug/L		10/16/2019 15:07
1,2,4-Trimethylbenzene	< 2.00	ug/L		10/16/2019 15:07
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		10/16/2019 15:07
1,2-Dibromoethane	< 2.00	ug/L		10/16/2019 15:07
1,2-Dichlorobenzene	< 2.00	ug/L		10/16/2019 15:07
1,2-Dichloroethane	< 2.00	ug/L		10/16/2019 15:07
1,2-Dichloropropane	< 2.00	ug/L		10/16/2019 15:07
1,3,5-Trimethylbenzene	< 2.00	ug/L		10/16/2019 15:07
1,3-Dichlorobenzene	< 2.00	ug/L		10/16/2019 15:07
1,4-Dichlorobenzene	< 2.00	ug/L		10/16/2019 15:07
1,4-Dioxane	< 20.0	ug/L		10/16/2019 15:07
2-Butanone	< 10.0	ug/L		10/16/2019 15:07
2-Hexanone	< 5.00	ug/L		10/16/2019 15:07
4-Methyl-2-pentanone	< 5.00	ug/L		10/16/2019 15:07
Acetone	< 10.0	ug/L		10/16/2019 15:07
Benzene	< 1.00	ug/L		10/16/2019 15:07
Bromochloromethane	< 5.00	ug/L		10/16/2019 15:07

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-106			
Lab Sample ID:	194905-08		Date Sampled:	10/4/2019
Matrix:	Groundwater		Date Received:	10/7/2019
Bromodichloromethane	< 2.00	ug/L	10/16/2019	15:07
Bromoform	< 5.00	ug/L	10/16/2019	15:07
Bromomethane	< 2.00	ug/L	10/16/2019	15:07
Carbon disulfide	< 2.00	ug/L	10/16/2019	15:07
Carbon Tetrachloride	< 2.00	ug/L	10/16/2019	15:07
Chlorobenzene	7.35	ug/L	10/16/2019	15:07
Chloroethane	< 2.00	ug/L	10/16/2019	15:07
Chloroform	< 2.00	ug/L	10/16/2019	15:07
Chloromethane	< 2.00	ug/L	10/16/2019	15:07
cis-1,2-Dichloroethene	< 2.00	ug/L	10/16/2019	15:07
cis-1,3-Dichloropropene	< 2.00	ug/L	10/16/2019	15:07
Cyclohexane	< 10.0	ug/L	10/16/2019	15:07
Dibromochloromethane	< 2.00	ug/L	10/16/2019	15:07
Dichlorodifluoromethane	< 2.00	ug/L	10/16/2019	15:07
Ethylbenzene	< 2.00	ug/L	10/16/2019	15:07
Freon 113	< 2.00	ug/L	10/16/2019	15:07
Isopropylbenzene	< 2.00	ug/L	10/16/2019	15:07
m,p-Xylene	< 2.00	ug/L	10/16/2019	15:07
Methyl acetate	< 2.00	ug/L	10/16/2019	15:07
Methyl tert-butyl Ether	< 2.00	ug/L	10/16/2019	15:07
Methylcyclohexane	< 2.00	ug/L	10/16/2019	15:07
Methylene chloride	< 5.00	ug/L	10/16/2019	15:07
Naphthalene	< 5.00	ug/L	10/16/2019	15:07
n-Butylbenzene	< 2.00	ug/L	10/16/2019	15:07
n-Propylbenzene	< 2.00	ug/L	10/16/2019	15:07

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

<b>Sample Identifier:</b>		MW-106			
<b>Lab Sample ID:</b>		194905-08		<b>Date Sampled:</b>	10/4/2019
<b>Matrix:</b>		Groundwater		<b>Date Received:</b>	10/7/2019
<hr/>					
o-Xylene	< 2.00	ug/L		10/16/2019	15:07
p-Isopropyltoluene	< 2.00	ug/L		10/16/2019	15:07
sec-Butylbenzene	< 2.00	ug/L		10/16/2019	15:07
Styrene	< 5.00	ug/L		10/16/2019	15:07
tert-Butylbenzene	< 2.00	ug/L		10/16/2019	15:07
Tetrachloroethene	< 2.00	ug/L		10/16/2019	15:07
Toluene	< 2.00	ug/L		10/16/2019	15:07
trans-1,2-Dichloroethene	< 2.00	ug/L		10/16/2019	15:07
trans-1,3-Dichloropropene	< 2.00	ug/L		10/16/2019	15:07
Trichloroethene	< 2.00	ug/L		10/16/2019	15:07
Trichlorofluoromethane	< 2.00	ug/L		10/16/2019	15:07
Vinyl chloride	< 2.00	ug/L		10/16/2019	15:07
<hr/>					
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>113</b>	70.5 - 135		10/16/2019 15:07
4-Bromofluorobenzene		<b>87.2</b>	62 - 127		10/16/2019 15:07
Pentafluorobenzene		<b>94.9</b>	87 - 113		10/16/2019 15:07
Toluene-D8		<b>94.4</b>	80.8 - 115		10/16/2019 15:07

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x65349.D

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Report Prepared Thursday, October 17, 2019



**Lab Project ID:** 194905

**Client:** **Bergmann Associates**

**Project Reference:** VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

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**Sample Identifier:** MW-107

**Lab Sample ID:** 194905-09

**Date Sampled:** 10/4/2019

**Matrix:** Groundwater

**Date Received:** 10/7/2019

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		10/9/2019 09:20

**Method Reference(s):** EPA 7470A

**Preparation Date:** 10/8/2019

**Data File:** Hg191009A

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*Report Prepared Thursday, October 17, 2019*



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-107

Lab Sample ID: 194905-09

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	< 0.100	mg/L		10/9/2019 21:07
Antimony	< 0.0600	mg/L		10/9/2019 21:07
Arsenic	< 0.0100	mg/L		10/11/2019 15:19
Barium	<b>0.0819</b>	mg/L	J	10/9/2019 21:07
Beryllium	< 0.00500	mg/L		10/9/2019 21:07
Cadmium	< 0.00500	mg/L		10/9/2019 21:07
Calcium	<b>186</b>	mg/L		10/9/2019 21:07
Chromium	< 0.0100	mg/L		10/9/2019 21:07
Cobalt	< 0.0500	mg/L		10/9/2019 21:07
Copper	< 0.0400	mg/L		10/11/2019 15:19
Iron	<b>3.30</b>	mg/L		10/9/2019 21:07
Lead	< 0.0100	mg/L		10/9/2019 21:07
Magnesium	<b>33.4</b>	mg/L		10/9/2019 21:07
Manganese	<b>0.360</b>	mg/L		10/9/2019 21:07
Nickel	< 0.0400	mg/L		10/9/2019 21:07
Potassium	<b>7.21</b>	mg/L		10/9/2019 21:07
Selenium	< 0.0200	mg/L		10/11/2019 15:19
Silver	< 0.0100	mg/L		10/9/2019 21:07
Sodium	<b>63.1</b>	mg/L	M	10/9/2019 21:07
Thallium	< 0.0250	mg/L		10/9/2019 21:07
Vanadium	< 0.0250	mg/L		10/9/2019 21:07
Zinc	<b>0.0513</b>	mg/L	J	10/9/2019 21:07

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Report Prepared Thursday, October 17, 2019



**Lab Project ID:** 194905

**Client:** **Bergmann Associates**

**Project Reference:** VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

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**Sample Identifier:** MW-107

**Lab Sample ID:** 194905-09

**Date Sampled:** 10/4/2019

**Matrix:** Groundwater

**Date Received:** 10/7/2019

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 10/8/2019

**Data File:** 191009B

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*Report Prepared Thursday, October 17, 2019*



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-107

Lab Sample ID: 194905-09

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**Semi-Volatile Organics (Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		10/10/2019 05:50
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		10/10/2019 05:50
1,2,4-Trichlorobenzene	< 10.0	ug/L		10/10/2019 05:50
1,2-Dichlorobenzene	< 10.0	ug/L		10/10/2019 05:50
1,3-Dichlorobenzene	< 10.0	ug/L		10/10/2019 05:50
1,4-Dichlorobenzene	< 10.0	ug/L		10/10/2019 05:50
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		10/10/2019 05:50
2,4-Dinitrotoluene	< 10.0	ug/L		10/10/2019 05:50
2,6-Dinitrotoluene	< 10.0	ug/L		10/10/2019 05:50
2-Chloronaphthalene	< 10.0	ug/L		10/10/2019 05:50
2-Methylnaphthalene	< 10.0	ug/L		10/10/2019 05:50
2-Nitroaniline	< 20.0	ug/L		10/10/2019 05:50
3,3'-Dichlorobenzidine	< 10.0	ug/L		10/10/2019 05:50
3-Nitroaniline	< 20.0	ug/L		10/10/2019 05:50
4-Bromophenyl phenyl ether	< 10.0	ug/L		10/10/2019 05:50
4-Chloroaniline	< 10.0	ug/L		10/10/2019 05:50
4-Chlorophenyl phenyl ether	< 10.0	ug/L		10/10/2019 05:50
4-Nitroaniline	< 20.0	ug/L		10/10/2019 05:50
Acenaphthene	< 10.0	ug/L		10/10/2019 05:50
Acenaphthylene	< 10.0	ug/L		10/10/2019 05:50
Acetophenone	< 10.0	ug/L		10/10/2019 05:50
Anthracene	< 10.0	ug/L		10/10/2019 05:50
Atrazine	< 10.0	ug/L		10/10/2019 05:50

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-107		
Lab Sample ID:	194905-09	Date Sampled:	10/4/2019
Matrix:	Groundwater	Date Received:	10/7/2019
Benzaldehyde	< 10.0	ug/L	10/10/2019 05:50
Benzo (a) anthracene	< 10.0	ug/L	10/10/2019 05:50
Benzo (a) pyrene	< 10.0	ug/L	10/10/2019 05:50
Benzo (b) fluoranthene	< 10.0	ug/L	10/10/2019 05:50
Benzo (g,h,i) perylene	< 10.0	ug/L	10/10/2019 05:50
Benzo (k) fluoranthene	< 10.0	ug/L	10/10/2019 05:50
Bis (2-chloroethoxy) methane	< 10.0	ug/L	10/10/2019 05:50
Bis (2-chloroethyl) ether	< 10.0	ug/L	10/10/2019 05:50
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	10/10/2019 05:50
Butylbenzylphthalate	< 10.0	ug/L	10/10/2019 05:50
Caprolactam	< 10.0	ug/L	10/10/2019 05:50
Carbazole	< 10.0	ug/L	10/10/2019 05:50
Chrysene	< 10.0	ug/L	10/10/2019 05:50
Dibenz (a,h) anthracene	< 10.0	ug/L	10/10/2019 05:50
Dibenzofuran	< 10.0	ug/L	10/10/2019 05:50
Diethyl phthalate	< 10.0	ug/L	10/10/2019 05:50
Dimethyl phthalate	< 20.0	ug/L	10/10/2019 05:50
Di-n-butyl phthalate	< 10.0	ug/L	10/10/2019 05:50
Di-n-octylphthalate	< 10.0	ug/L	10/10/2019 05:50
Fluoranthene	< 10.0	ug/L	10/10/2019 05:50
Fluorene	< 10.0	ug/L	10/10/2019 05:50
Hexachlorobenzene	< 10.0	ug/L	10/10/2019 05:50
Hexachlorobutadiene	< 10.0	ug/L	10/10/2019 05:50
Hexachlorocyclopentadiene	< 10.0	ug/L	10/10/2019 05:50
Hexachloroethane	< 10.0	ug/L	10/10/2019 05:50

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-107				
Lab Sample ID:	194905-09		Date Sampled:	10/4/2019	
Matrix:	Groundwater		Date Received:	10/7/2019	
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L		10/10/2019	05:50
Isophorone	< 10.0	ug/L		10/10/2019	05:50
Naphthalene	< 10.0	ug/L		10/10/2019	05:50
Nitrobenzene	< 10.0	ug/L		10/10/2019	05:50
N-Nitroso-di-n-propylamine	< 10.0	ug/L		10/10/2019	05:50
N-Nitrosodiphenylamine	< 10.0	ug/L		10/10/2019	05:50
Phenanthrene	< 10.0	ug/L		10/10/2019	05:50
Pyrene	< 10.0	ug/L		10/10/2019	05:50
<b><u>Surrogate</u></b>	<b><u>Percent Recovery</u></b>	<b><u>Limits</u></b>	<b><u>Outliers</u></b>	<b><u>Date Analyzed</u></b>	
2-Fluorobiphenyl	52.7	36.3 - 95.4		10/10/2019	05:50
Nitrobenzene-d5	64.2	52.1 - 98.9		10/10/2019	05:50
Terphenyl-d14	71.1	59.6 - 112		10/10/2019	05:50
Method Reference(s):	EPA 8270D				
	EPA 3510C				
Preparation Date:	10/8/2019				
Data File:	B41367.D				

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: MW-107

Lab Sample ID: 194905-09

Date Sampled: 10/4/2019

Matrix: Groundwater

Date Received: 10/7/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		10/16/2019 14:44
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		10/16/2019 14:44
1,1,2-Trichloroethane	< 2.00	ug/L		10/16/2019 14:44
1,1-Dichloroethane	< 2.00	ug/L		10/16/2019 14:44
1,1-Dichloroethene	< 2.00	ug/L		10/16/2019 14:44
1,2,3-Trichlorobenzene	< 5.00	ug/L		10/16/2019 14:44
1,2,4-Trichlorobenzene	< 5.00	ug/L		10/16/2019 14:44
1,2,4-Trimethylbenzene	< 2.00	ug/L		10/16/2019 14:44
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		10/16/2019 14:44
1,2-Dibromoethane	< 2.00	ug/L		10/16/2019 14:44
1,2-Dichlorobenzene	< 2.00	ug/L		10/16/2019 14:44
1,2-Dichloroethane	< 2.00	ug/L		10/16/2019 14:44
1,2-Dichloropropane	< 2.00	ug/L		10/16/2019 14:44
1,3,5-Trimethylbenzene	< 2.00	ug/L		10/16/2019 14:44
1,3-Dichlorobenzene	< 2.00	ug/L		10/16/2019 14:44
1,4-Dichlorobenzene	< 2.00	ug/L		10/16/2019 14:44
1,4-Dioxane	< 20.0	ug/L		10/16/2019 14:44
2-Butanone	< 10.0	ug/L		10/16/2019 14:44
2-Hexanone	< 5.00	ug/L		10/16/2019 14:44
4-Methyl-2-pentanone	< 5.00	ug/L		10/16/2019 14:44
Acetone	< 10.0	ug/L		10/16/2019 14:44
Benzene	< 1.00	ug/L		10/16/2019 14:44
Bromochloromethane	< 5.00	ug/L		10/16/2019 14:44

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	MW-107			
Lab Sample ID:	194905-09		Date Sampled:	10/4/2019
Matrix:	Groundwater		Date Received:	10/7/2019
Bromodichloromethane	< 2.00	ug/L		10/16/2019 14:44
Bromoform	< 5.00	ug/L		10/16/2019 14:44
Bromomethane	< 2.00	ug/L		10/16/2019 14:44
Carbon disulfide	< 2.00	ug/L		10/16/2019 14:44
Carbon Tetrachloride	< 2.00	ug/L		10/16/2019 14:44
Chlorobenzene	< 2.00	ug/L		10/16/2019 14:44
Chloroethane	< 2.00	ug/L		10/16/2019 14:44
Chloroform	< 2.00	ug/L		10/16/2019 14:44
Chloromethane	< 2.00	ug/L		10/16/2019 14:44
cis-1,2-Dichloroethene	< 2.00	ug/L		10/16/2019 14:44
cis-1,3-Dichloropropene	< 2.00	ug/L		10/16/2019 14:44
Cyclohexane	< 10.0	ug/L		10/16/2019 14:44
Dibromochloromethane	< 2.00	ug/L		10/16/2019 14:44
Dichlorodifluoromethane	< 2.00	ug/L		10/16/2019 14:44
Ethylbenzene	< 2.00	ug/L		10/16/2019 14:44
Freon 113	< 2.00	ug/L		10/16/2019 14:44
Isopropylbenzene	< 2.00	ug/L		10/16/2019 14:44
m,p-Xylene	< 2.00	ug/L		10/16/2019 14:44
Methyl acetate	< 2.00	ug/L		10/16/2019 14:44
Methyl tert-butyl Ether	< 2.00	ug/L		10/16/2019 14:44
Methylcyclohexane	< 2.00	ug/L		10/16/2019 14:44
Methylene chloride	3.12	ug/L	J	10/16/2019 14:44
Naphthalene	< 5.00	ug/L		10/16/2019 14:44
n-Butylbenzene	< 2.00	ug/L		10/16/2019 14:44
n-Propylbenzene	< 2.00	ug/L		10/16/2019 14:44

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

<b>Sample Identifier:</b>		MW-107			
<b>Lab Sample ID:</b>		194905-09		<b>Date Sampled:</b>	10/4/2019
<b>Matrix:</b>		Groundwater		<b>Date Received:</b>	10/7/2019
<hr/>					
o-Xylene	< 2.00	ug/L		10/16/2019	14:44
p-Isopropyltoluene	< 2.00	ug/L		10/16/2019	14:44
sec-Butylbenzene	< 2.00	ug/L		10/16/2019	14:44
Styrene	< 5.00	ug/L		10/16/2019	14:44
tert-Butylbenzene	< 2.00	ug/L		10/16/2019	14:44
Tetrachloroethene	< 2.00	ug/L		10/16/2019	14:44
Toluene	< 2.00	ug/L		10/16/2019	14:44
trans-1,2-Dichloroethene	< 2.00	ug/L		10/16/2019	14:44
trans-1,3-Dichloropropene	< 2.00	ug/L		10/16/2019	14:44
Trichloroethene	< 2.00	ug/L		10/16/2019	14:44
Trichlorofluoromethane	< 2.00	ug/L		10/16/2019	14:44
Vinyl chloride	< 2.00	ug/L		10/16/2019	14:44
<hr/>					
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>109</b>	70.5 - 135		10/16/2019 14:44
4-Bromofluorobenzene		<b>84.1</b>	62 - 127		10/16/2019 14:44
Pentafluorobenzene		<b>93.8</b>	87 - 113		10/16/2019 14:44
Toluene-D8		<b>97.5</b>	80.8 - 115		10/16/2019 14:44

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x65348.D

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier: Trip Blank

Lab Sample ID: 194905-10

Matrix: Water

Date Sampled: 10/2/2019

Date Received: 10/7/2019

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		10/16/2019 14:22
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		10/16/2019 14:22
1,1,2-Trichloroethane	< 2.00	ug/L		10/16/2019 14:22
1,1-Dichloroethane	< 2.00	ug/L		10/16/2019 14:22
1,1-Dichloroethene	< 2.00	ug/L		10/16/2019 14:22
1,2,3-Trichlorobenzene	< 5.00	ug/L		10/16/2019 14:22
1,2,4-Trichlorobenzene	< 5.00	ug/L		10/16/2019 14:22
1,2,4-Trimethylbenzene	< 2.00	ug/L		10/16/2019 14:22
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		10/16/2019 14:22
1,2-Dibromoethane	< 2.00	ug/L		10/16/2019 14:22
1,2-Dichlorobenzene	< 2.00	ug/L		10/16/2019 14:22
1,2-Dichloroethane	< 2.00	ug/L		10/16/2019 14:22
1,2-Dichloropropane	< 2.00	ug/L		10/16/2019 14:22
1,3,5-Trimethylbenzene	< 2.00	ug/L		10/16/2019 14:22
1,3-Dichlorobenzene	< 2.00	ug/L		10/16/2019 14:22
1,4-Dichlorobenzene	< 2.00	ug/L		10/16/2019 14:22
1,4-Dioxane	< 20.0	ug/L		10/16/2019 14:22
2-Butanone	< 10.0	ug/L		10/16/2019 14:22
2-Hexanone	< 5.00	ug/L		10/16/2019 14:22
4-Methyl-2-pentanone	< 5.00	ug/L		10/16/2019 14:22
Acetone	< 10.0	ug/L		10/16/2019 14:22
Benzene	< 1.00	ug/L		10/16/2019 14:22
Bromochloromethane	< 5.00	ug/L		10/16/2019 14:22

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	Trip Blank			Date Sampled:	10/2/2019
Lab Sample ID:	194905-10			Date Received:	10/7/2019
Matrix:	Water				
Bromodichloromethane	< 2.00	ug/L		10/16/2019	14:22
Bromoform	< 5.00	ug/L		10/16/2019	14:22
Bromomethane	< 2.00	ug/L		10/16/2019	14:22
Carbon disulfide	< 2.00	ug/L		10/16/2019	14:22
Carbon Tetrachloride	< 2.00	ug/L		10/16/2019	14:22
Chlorobenzene	< 2.00	ug/L		10/16/2019	14:22
Chloroethane	< 2.00	ug/L		10/16/2019	14:22
Chloroform	< 2.00	ug/L		10/16/2019	14:22
Chloromethane	< 2.00	ug/L		10/16/2019	14:22
cis-1,2-Dichloroethene	< 2.00	ug/L		10/16/2019	14:22
cis-1,3-Dichloropropene	< 2.00	ug/L		10/16/2019	14:22
Cyclohexane	< 10.0	ug/L		10/16/2019	14:22
Dibromochloromethane	< 2.00	ug/L		10/16/2019	14:22
Dichlorodifluoromethane	< 2.00	ug/L		10/16/2019	14:22
Ethylbenzene	< 2.00	ug/L		10/16/2019	14:22
Freon 113	< 2.00	ug/L		10/16/2019	14:22
Isopropylbenzene	< 2.00	ug/L		10/16/2019	14:22
m,p-Xylene	< 2.00	ug/L		10/16/2019	14:22
Methyl acetate	< 2.00	ug/L		10/16/2019	14:22
Methyl tert-butyl Ether	< 2.00	ug/L		10/16/2019	14:22
Methylcyclohexane	< 2.00	ug/L		10/16/2019	14:22
Methylene chloride	3.37	ug/L	J	10/16/2019	14:22
Naphthalene	< 5.00	ug/L		10/16/2019	14:22
n-Butylbenzene	< 2.00	ug/L		10/16/2019	14:22
n-Propylbenzene	< 2.00	ug/L		10/16/2019	14:22

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Report Prepared Thursday, October 17, 2019



Lab Project ID: 194905

Client: **Bergmann Associates**

Project Reference: VOA 3rd Qtr. Monitoring Back Lot - 214 Lake

Sample Identifier:	Trip Blank			Date Sampled:	10/2/2019
Lab Sample ID:	194905-10			Date Received:	10/7/2019
Matrix:	Water				
o-Xylene	< 2.00	ug/L		10/16/2019	14:22
p-Isopropyltoluene	< 2.00	ug/L		10/16/2019	14:22
sec-Butylbenzene	< 2.00	ug/L		10/16/2019	14:22
Styrene	< 5.00	ug/L		10/16/2019	14:22
tert-Butylbenzene	< 2.00	ug/L		10/16/2019	14:22
Tetrachloroethene	< 2.00	ug/L		10/16/2019	14:22
Toluene	< 2.00	ug/L		10/16/2019	14:22
trans-1,2-Dichloroethene	< 2.00	ug/L		10/16/2019	14:22
trans-1,3-Dichloropropene	< 2.00	ug/L		10/16/2019	14:22
Trichloroethene	< 2.00	ug/L		10/16/2019	14:22
Trichlorofluoromethane	< 2.00	ug/L		10/16/2019	14:22
Vinyl chloride	< 2.00	ug/L		10/16/2019	14:22
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	105	70.5 - 135		10/16/2019	14:22
4-Bromofluorobenzene	86.4	62 - 127		10/16/2019	14:22
Pentafluorobenzene	97.7	87 - 113		10/16/2019	14:22
Toluene-D8	95.2	80.8 - 115		10/16/2019	14:22

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x65347.D

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Report Prepared Thursday, October 17, 2019



## Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

*"<" = Analyzed for but not detected at or above the quantitation limit.*

*"E" = Result has been estimated, calibration limit exceeded.*

*"Z" = See case narrative.*

*"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.*

*"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.*

*"B" = Method blank contained trace levels of analyte. Refer to included method blank report.*

*"J" = Result estimated between the quantitation limit and half the quantitation limit.*

*"L" = Laboratory Control Sample recovery outside accepted QC limits.*

*"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.*

*"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.*

*"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

*"(1)" = Indicates data from primary column used for QC calculation.*

*"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.*

*"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.*

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# GENERAL TERMS AND CONDITIONS

## LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

### Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

### Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

### Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

### Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

### Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

### Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

### Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

### Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

### Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

### Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

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Page 1 of 2



## PROJECT REFERENCE

V04 3rd Qtr. Membership  
PktLot-21446

REQUESTED ANALYSIS

Stephen J DelMed

10°C red started in field  
control seals intact m 10/11/19

Stephen J DelMed

**Total Cost:**

See additional page for sample conditions.

## Page 2 of 2

REQUESTED ANALYSIS[illegible]

Steph J Delme

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).



## Chain of Custody Supplement

Client: Bergmann Associates Completed by: Glenn Pezzulo  
Lab Project ID: 194905 Date: 10/7/19

### Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input checked="" type="checkbox"/> vOA	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Preservation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> vOA
Comments			
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Metals
Comments	10°C iced started in field 10/4/19		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

---

Sample Identifier: MWR-101

Lab Sample ID: 200044-01

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

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**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	< 0.000200	mg/L		1/8/2020 10:19

Method Reference(s): EPA 7470A

Preparation Date: 1/7/2020

Data File: Hg200108A

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MWR-101

Lab Sample ID: 200044-01

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	1.35	mg/L		1/7/2020 18:12
Antimony	< 0.0600	mg/L		1/7/2020 18:12
Arsenic	< 0.0100	mg/L		1/7/2020 18:12
Barium	< 0.100	mg/L		1/7/2020 18:12
Beryllium	< 0.00500	mg/L		1/7/2020 18:12
Cadmium	< 0.00500	mg/L		1/7/2020 18:12
Calcium	18.3	mg/L		1/7/2020 18:12
Chromium	< 0.0100	mg/L		1/7/2020 18:12
Cobalt	< 0.0500	mg/L		1/7/2020 18:12
Copper	< 0.0200	mg/L		1/7/2020 18:12
Iron	0.984	mg/L		1/7/2020 18:12
Lead	< 0.0100	mg/L		1/7/2020 18:12
Magnesium	3.89	mg/L		1/7/2020 18:12
Manganese	0.0123	mg/L	J	1/7/2020 18:12
Nickel	< 0.0400	mg/L		1/7/2020 18:12
Potassium	2.47	mg/L	J	1/7/2020 18:12
Selenium	< 0.0200	mg/L		1/7/2020 18:12
Silver	< 0.0100	mg/L		1/7/2020 18:12
Sodium	878	mg/L		1/14/2020 15:51
Thallium	< 0.0250	mg/L		1/7/2020 18:12
Vanadium	< 0.0250	mg/L		1/7/2020 18:12
Zinc	0.0618	mg/L		1/7/2020 18:12

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Report Prepared Thursday, January 16, 2020



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 200044

**Client:** **Bergmann Associates**

**Project Reference:** VOA Back Lot

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**Sample Identifier:** MWR-101

**Lab Sample ID:** 200044-01

**Date Sampled:** 1/3/2020

**Matrix:** Groundwater

**Date Received:** 1/3/2020

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 1/6/2020

**Data File:** 200107C

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*Report Prepared Thursday, January 16, 2020*



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MWR-101

Lab Sample ID: 200044-01

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 9.96	ug/L		1/8/2020 00:33
1,2,4,5-Tetrachlorobenzene	< 9.96	ug/L		1/8/2020 00:33
1,2,4-Trichlorobenzene	< 9.96	ug/L		1/8/2020 00:33
1,2-Dichlorobenzene	< 9.96	ug/L		1/8/2020 00:33
1,3-Dichlorobenzene	< 9.96	ug/L		1/8/2020 00:33
1,4-Dichlorobenzene	< 9.96	ug/L		1/8/2020 00:33
2,2-Oxybis (1-chloropropane)	< 9.96	ug/L		1/8/2020 00:33
2,3,4,6-Tetrachlorophenol	< 9.96	ug/L		1/8/2020 00:33
2,4,5-Trichlorophenol	< 19.9	ug/L		1/8/2020 00:33
2,4,6-Trichlorophenol	< 9.96	ug/L		1/8/2020 00:33
2,4-Dichlorophenol	< 9.96	ug/L		1/8/2020 00:33
2,4-Dimethylphenol	< 19.9	ug/L		1/8/2020 00:33
2,4-Dinitrophenol	< 19.9	ug/L		1/8/2020 00:33
2,4-Dinitrotoluene	< 9.96	ug/L		1/8/2020 00:33
2,6-Dinitrotoluene	< 9.96	ug/L		1/8/2020 00:33
2-Chloronaphthalene	< 9.96	ug/L		1/8/2020 00:33
2-Chlorophenol	< 9.96	ug/L		1/8/2020 00:33
2-Methylnapthalene	< 9.96	ug/L		1/8/2020 00:33
2-Methylphenol	< 9.96	ug/L		1/8/2020 00:33
2-Nitroaniline	< 19.9	ug/L		1/8/2020 00:33
2-Nitrophenol	< 9.96	ug/L		1/8/2020 00:33
3&4-Methylphenol	< 9.96	ug/L		1/8/2020 00:33
3,3'-Dichlorobenzidine	< 9.96	ug/L		1/8/2020 00:33

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MWR-101

Lab Sample ID: 200044-01

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

3-Nitroaniline	< 19.9	ug/L	1/8/2020 00:33
4,6-Dinitro-2-methylphenol	< 19.9	ug/L	1/8/2020 00:33
4-Bromophenyl phenyl ether	< 9.96	ug/L	1/8/2020 00:33
4-Chloro-3-methylphenol	< 9.96	ug/L	1/8/2020 00:33
4-Chloroaniline	< 9.96	ug/L	1/8/2020 00:33
4-Chlorophenyl phenyl ether	< 9.96	ug/L	1/8/2020 00:33
4-Nitroaniline	< 19.9	ug/L	1/8/2020 00:33
4-Nitrophenol	< 19.9	ug/L	1/8/2020 00:33
Acenaphthene	< 9.96	ug/L	1/8/2020 00:33
Acenaphthylene	< 9.96	ug/L	1/8/2020 00:33
Acetophenone	< 9.96	ug/L	1/8/2020 00:33
Anthracene	< 9.96	ug/L	1/8/2020 00:33
Atrazine	< 9.96	ug/L	1/8/2020 00:33
Benzaldehyde	< 9.96	ug/L	1/8/2020 00:33
Benzo (a) anthracene	< 9.96	ug/L	1/8/2020 00:33
Benzo (a) pyrene	< 9.96	ug/L	1/8/2020 00:33
Benzo (b) fluoranthene	< 9.96	ug/L	1/8/2020 00:33
Benzo (g,h,i) perylene	< 9.96	ug/L	1/8/2020 00:33
Benzo (k) fluoranthene	< 9.96	ug/L	1/8/2020 00:33
Bis (2-chloroethoxy) methane	< 9.96	ug/L	1/8/2020 00:33
Bis (2-chloroethyl) ether	< 9.96	ug/L	1/8/2020 00:33
Bis (2-ethylhexyl) phthalate	< 9.96	ug/L	1/8/2020 00:33
Butylbenzylphthalate	< 9.96	ug/L	1/8/2020 00:33
Caprolactam	< 9.96	ug/L	1/8/2020 00:33
Carbazole	< 9.96	ug/L	1/8/2020 00:33

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MWR-101

Lab Sample ID: 200044-01

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

Chrysene	< 9.96	ug/L	1/8/2020 00:33
Dibenz (a,h) anthracene	< 9.96	ug/L	1/8/2020 00:33
Dibenzofuran	< 9.96	ug/L	1/8/2020 00:33
Diethyl phthalate	< 9.96	ug/L	1/8/2020 00:33
Dimethyl phthalate	< 19.9	ug/L	1/8/2020 00:33
Di-n-butyl phthalate	< 9.96	ug/L	1/8/2020 00:33
Di-n-octylphthalate	< 9.96	ug/L	1/8/2020 00:33
Fluoranthene	< 9.96	ug/L	1/8/2020 00:33
Fluorene	< 9.96	ug/L	1/8/2020 00:33
Hexachlorobenzene	< 9.96	ug/L	1/8/2020 00:33
Hexachlorobutadiene	< 9.96	ug/L	1/8/2020 00:33
Hexachlorocyclopentadiene	< 9.96	ug/L	1/8/2020 00:33
Hexachloroethane	< 9.96	ug/L	1/8/2020 00:33
Indeno (1,2,3-cd) pyrene	< 9.96	ug/L	1/8/2020 00:33
Isophorone	< 9.96	ug/L	1/8/2020 00:33
Naphthalene	< 9.96	ug/L	1/8/2020 00:33
Nitrobenzene	< 9.96	ug/L	1/8/2020 00:33
N-Nitroso-di-n-propylamine	< 9.96	ug/L	1/8/2020 00:33
N-Nitrosodiphenylamine	< 9.96	ug/L	1/8/2020 00:33
Pentachlorophenol	< 19.9	ug/L	1/8/2020 00:33
Phenanthrene	< 9.96	ug/L	1/8/2020 00:33
Phenol	< 9.96	ug/L	1/8/2020 00:33
Pyrene	< 9.96	ug/L	1/8/2020 00:33

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Report Prepared Thursday, January 16, 2020



**Lab Project ID:** 200044

**Client:** **Bergmann Associates**

**Project Reference:** VOA Back Lot

**Sample Identifier:** MWR-101

**Lab Sample ID:** 200044-01

**Date Sampled:** 1/3/2020

**Matrix:** Groundwater

**Date Received:** 1/3/2020

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>94.5</b>	59.6 - 114		1/8/2020	00:33
2-Fluorobiphenyl	<b>70.0</b>	36.2 - 99.1		1/8/2020	00:33
2-Fluorophenol	<b>40.2</b>	14.9 - 105		1/8/2020	00:33
Nitrobenzene-d5	<b>78.8</b>	53.7 - 102		1/8/2020	00:33
Phenol-d5	<b>25.2</b>	10 - 106		1/8/2020	00:33
Terphenyl-d14	<b>79.8</b>	58.7 - 116		1/8/2020	00:33

**Method Reference(s):** EPA 8270D

EPA 3510C

**Preparation Date:** 1/6/2020

**Data File:** B43607.D

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*Report Prepared Thursday, January 16, 2020*



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MWR-101

Lab Sample ID: 200044-01

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 2.00	ug/L		1/6/2020 22:22
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		1/6/2020 22:22
1,1,2-Trichloroethane	< 2.00	ug/L		1/6/2020 22:22
1,1-Dichloroethane	< 2.00	ug/L		1/6/2020 22:22
1,1-Dichloroethene	< 2.00	ug/L		1/6/2020 22:22
1,2,3-Trichlorobenzene	< 5.00	ug/L		1/6/2020 22:22
1,2,4-Trichlorobenzene	< 5.00	ug/L		1/6/2020 22:22
1,2,4-Trimethylbenzene	< 2.00	ug/L		1/6/2020 22:22
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		1/6/2020 22:22
1,2-Dibromoethane	< 2.00	ug/L		1/6/2020 22:22
1,2-Dichlorobenzene	< 2.00	ug/L		1/6/2020 22:22
1,2-Dichloroethane	< 2.00	ug/L		1/6/2020 22:22
1,2-Dichloropropane	< 2.00	ug/L		1/6/2020 22:22
1,3,5-Trimethylbenzene	< 2.00	ug/L		1/6/2020 22:22
1,3-Dichlorobenzene	< 2.00	ug/L		1/6/2020 22:22
1,4-Dichlorobenzene	< 2.00	ug/L		1/6/2020 22:22
1,4-Dioxane	< 20.0	ug/L		1/6/2020 22:22
2-Butanone	< 10.0	ug/L		1/6/2020 22:22
2-Hexanone	< 5.00	ug/L		1/6/2020 22:22
4-Methyl-2-pentanone	< 5.00	ug/L		1/6/2020 22:22
Acetone	< 10.0	ug/L		1/6/2020 22:22
Benzene	< 1.00	ug/L		1/6/2020 22:22
Bromochloromethane	< 5.00	ug/L		1/6/2020 22:22

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MWR-101		
Lab Sample ID:	200044-01	Date Sampled:	1/3/2020
Matrix:	Groundwater	Date Received:	1/3/2020
Bromodichloromethane	< 2.00	ug/L	1/6/2020 22:22
Bromoform	< 5.00	ug/L	1/6/2020 22:22
Bromomethane	< 2.00	ug/L	1/6/2020 22:22
Carbon disulfide	< 2.00	ug/L	1/6/2020 22:22
Carbon Tetrachloride	< 2.00	ug/L	1/6/2020 22:22
Chlorobenzene	< 2.00	ug/L	1/6/2020 22:22
Chloroethane	< 2.00	ug/L	1/6/2020 22:22
Chloroform	< 2.00	ug/L	1/6/2020 22:22
Chloromethane	< 2.00	ug/L	1/6/2020 22:22
cis-1,2-Dichloroethene	< 2.00	ug/L	1/6/2020 22:22
cis-1,3-Dichloropropene	< 2.00	ug/L	1/6/2020 22:22
Cyclohexane	< 10.0	ug/L	1/6/2020 22:22
Dibromochloromethane	< 2.00	ug/L	1/6/2020 22:22
Dichlorodifluoromethane	< 2.00	ug/L	1/6/2020 22:22
Ethylbenzene	< 2.00	ug/L	1/6/2020 22:22
Freon 113	< 2.00	ug/L	1/6/2020 22:22
Isopropylbenzene	< 2.00	ug/L	1/6/2020 22:22
m,p-Xylene	< 2.00	ug/L	1/6/2020 22:22
Methyl acetate	< 2.00	ug/L	1/6/2020 22:22
Methyl tert-butyl Ether	< 2.00	ug/L	1/6/2020 22:22
Methylcyclohexane	< 2.00	ug/L	1/6/2020 22:22
Methylene chloride	< 5.00	ug/L	1/6/2020 22:22
Naphthalene	< 5.00	ug/L	1/6/2020 22:22
n-Butylbenzene	< 2.00	ug/L	1/6/2020 22:22
n-Propylbenzene	< 2.00	ug/L	1/6/2020 22:22

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MWR-101

Lab Sample ID: 200044-01

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

o-Xylene	< 2.00	ug/L	1/6/2020 22:22
p-Isopropyltoluene	< 2.00	ug/L	1/6/2020 22:22
sec-Butylbenzene	< 2.00	ug/L	1/6/2020 22:22
Styrene	< 5.00	ug/L	1/6/2020 22:22
tert-Butylbenzene	< 2.00	ug/L	1/6/2020 22:22
Tetrachloroethene	< 2.00	ug/L	1/6/2020 22:22
Toluene	< 2.00	ug/L	1/6/2020 22:22
trans-1,2-Dichloroethene	< 2.00	ug/L	1/6/2020 22:22
trans-1,3-Dichloropropene	< 2.00	ug/L	1/6/2020 22:22
Trichloroethene	< 2.00	ug/L	1/6/2020 22:22
Trichlorofluoromethane	< 2.00	ug/L	1/6/2020 22:22
Vinyl chloride	< 2.00	ug/L	1/6/2020 22:22

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	114	74.3 - 138		1/6/2020 22:22
4-Bromofluorobenzene	81.0	66.3 - 125		1/6/2020 22:22
Pentafluorobenzene	100	87.4 - 111		1/6/2020 22:22
Toluene-D8	90.9	85.8 - 113		1/6/2020 22:22

Method Reference(s): EPA 8260C  
EPA 5030C

Data File: x67669.D

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

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Sample Identifier: MW-101

Lab Sample ID: 200044-02

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

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**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	< 0.000200	mg/L		1/8/2020 10:21

Method Reference(s): EPA 7470A

Preparation Date: 1/7/2020

Data File: Hg200108A

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-101

Lab Sample ID: 200044-02

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	< 0.100	mg/L		1/7/2020 18:17
Antimony	< 0.0600	mg/L		1/7/2020 18:17
Arsenic	< 0.0100	mg/L		1/7/2020 18:17
Barium	<b>0.157</b>	mg/L		1/7/2020 18:17
Beryllium	< 0.00500	mg/L		1/7/2020 18:17
Cadmium	< 0.00500	mg/L		1/7/2020 18:17
Calcium	<b>144</b>	mg/L		1/7/2020 18:17
Chromium	< 0.0100	mg/L		1/7/2020 18:17
Cobalt	< 0.0500	mg/L		1/7/2020 18:17
Copper	< 0.0200	mg/L		1/7/2020 18:17
Iron	<b>8.91</b>	mg/L		1/7/2020 18:17
Lead	< 0.0100	mg/L		1/7/2020 18:17
Magnesium	<b>34.8</b>	mg/L		1/7/2020 18:17
Manganese	<b>0.577</b>	mg/L		1/7/2020 18:17
Nickel	< 0.0400	mg/L		1/7/2020 18:17
Potassium	<b>8.70</b>	mg/L		1/7/2020 18:17
Selenium	< 0.0200	mg/L		1/14/2020 15:29
Silver	< 0.0100	mg/L		1/7/2020 18:17
Sodium	<b>155</b>	mg/L		1/7/2020 18:17
Thallium	< 0.0250	mg/L		1/7/2020 18:17
Vanadium	< 0.0250	mg/L		1/7/2020 18:17
Zinc	< 0.0600	mg/L		1/7/2020 18:17

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Report Prepared Thursday, January 16, 2020



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 200044

**Client:** **Bergmann Associates**

**Project Reference:** VOA Back Lot

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**Sample Identifier:** MW-101

**Lab Sample ID:** 200044-02

**Date Sampled:** 1/3/2020

**Matrix:** Groundwater

**Date Received:** 1/3/2020

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 1/6/2020

**Data File:** 200107C

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*Report Prepared Thursday, January 16, 2020*



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-101

Lab Sample ID: 200044-02

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		1/8/2020 01:01
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		1/8/2020 01:01
1,2,4-Trichlorobenzene	< 10.0	ug/L		1/8/2020 01:01
1,2-Dichlorobenzene	< 10.0	ug/L		1/8/2020 01:01
1,3-Dichlorobenzene	< 10.0	ug/L		1/8/2020 01:01
1,4-Dichlorobenzene	< 10.0	ug/L		1/8/2020 01:01
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		1/8/2020 01:01
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		1/8/2020 01:01
2,4,5-Trichlorophenol	< 20.0	ug/L		1/8/2020 01:01
2,4,6-Trichlorophenol	< 10.0	ug/L		1/8/2020 01:01
2,4-Dichlorophenol	< 10.0	ug/L		1/8/2020 01:01
2,4-Dimethylphenol	< 20.0	ug/L		1/8/2020 01:01
2,4-Dinitrophenol	< 20.0	ug/L		1/8/2020 01:01
2,4-Dinitrotoluene	< 10.0	ug/L		1/8/2020 01:01
2,6-Dinitrotoluene	< 10.0	ug/L		1/8/2020 01:01
2-Chloronaphthalene	< 10.0	ug/L		1/8/2020 01:01
2-Chlorophenol	< 10.0	ug/L		1/8/2020 01:01
2-Methylnaphthalene	< 10.0	ug/L		1/8/2020 01:01
2-Methylphenol	< 10.0	ug/L		1/8/2020 01:01
2-Nitroaniline	< 20.0	ug/L		1/8/2020 01:01
2-Nitrophenol	< 10.0	ug/L		1/8/2020 01:01
3&4-Methylphenol	< 10.0	ug/L		1/8/2020 01:01
3,3'-Dichlorobenzidine	< 10.0	ug/L		1/8/2020 01:01

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-101			
Lab Sample ID:	200044-02		Date Sampled:	1/3/2020
Matrix:	Groundwater		Date Received:	1/3/2020
3-Nitroaniline	< 20.0	ug/L	1/8/2020	01:01
4,6-Dinitro-2-methylphenol	< 20.0	ug/L	1/8/2020	01:01
4-Bromophenyl phenyl ether	< 10.0	ug/L	1/8/2020	01:01
4-Chloro-3-methylphenol	< 10.0	ug/L	1/8/2020	01:01
4-Chloroaniline	< 10.0	ug/L	1/8/2020	01:01
4-Chlorophenyl phenyl ether	< 10.0	ug/L	1/8/2020	01:01
4-Nitroaniline	< 20.0	ug/L	1/8/2020	01:01
4-Nitrophenol	< 20.0	ug/L	1/8/2020	01:01
Acenaphthene	< 10.0	ug/L	1/8/2020	01:01
Acenaphthylene	< 10.0	ug/L	1/8/2020	01:01
Acetophenone	< 10.0	ug/L	1/8/2020	01:01
Anthracene	< 10.0	ug/L	1/8/2020	01:01
Atrazine	< 10.0	ug/L	1/8/2020	01:01
Benzaldehyde	< 10.0	ug/L	1/8/2020	01:01
Benzo (a) anthracene	< 10.0	ug/L	1/8/2020	01:01
Benzo (a) pyrene	< 10.0	ug/L	1/8/2020	01:01
Benzo (b) fluoranthene	< 10.0	ug/L	1/8/2020	01:01
Benzo (g,h,i) perylene	< 10.0	ug/L	1/8/2020	01:01
Benzo (k) fluoranthene	< 10.0	ug/L	1/8/2020	01:01
Bis (2-chloroethoxy) methane	< 10.0	ug/L	1/8/2020	01:01
Bis (2-chloroethyl) ether	< 10.0	ug/L	1/8/2020	01:01
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	1/8/2020	01:01
Butylbenzylphthalate	< 10.0	ug/L	1/8/2020	01:01
Caprolactam	< 10.0	ug/L	1/8/2020	01:01
Carbazole	< 10.0	ug/L	1/8/2020	01:01

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-101		
Lab Sample ID:	200044-02	Date Sampled:	1/3/2020
Matrix:	Groundwater	Date Received:	1/3/2020
Chrysene	< 10.0	ug/L	1/8/2020 01:01
Dibenz (a,h) anthracene	< 10.0	ug/L	1/8/2020 01:01
Dibenzofuran	< 10.0	ug/L	1/8/2020 01:01
Diethyl phthalate	< 10.0	ug/L	1/8/2020 01:01
Dimethyl phthalate	< 20.0	ug/L	1/8/2020 01:01
Di-n-butyl phthalate	< 10.0	ug/L	1/8/2020 01:01
Di-n-octylphthalate	< 10.0	ug/L	1/8/2020 01:01
Fluoranthene	< 10.0	ug/L	1/8/2020 01:01
Fluorene	< 10.0	ug/L	1/8/2020 01:01
Hexachlorobenzene	< 10.0	ug/L	1/8/2020 01:01
Hexachlorobutadiene	< 10.0	ug/L	1/8/2020 01:01
Hexachlorocyclopentadiene	< 10.0	ug/L	1/8/2020 01:01
Hexachloroethane	< 10.0	ug/L	1/8/2020 01:01
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	1/8/2020 01:01
Isophorone	< 10.0	ug/L	1/8/2020 01:01
Naphthalene	< 10.0	ug/L	1/8/2020 01:01
Nitrobenzene	< 10.0	ug/L	1/8/2020 01:01
N-Nitroso-di-n-propylamine	< 10.0	ug/L	1/8/2020 01:01
N-Nitrosodiphenylamine	< 10.0	ug/L	1/8/2020 01:01
Pentachlorophenol	< 20.0	ug/L	1/8/2020 01:01
Phenanthrene	< 10.0	ug/L	1/8/2020 01:01
Phenol	< 10.0	ug/L	1/8/2020 01:01
Pyrene	< 10.0	ug/L	1/8/2020 01:01

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Report Prepared Thursday, January 16, 2020



**Lab Project ID:** 200044

**Client:** **Bergmann Associates**

**Project Reference:** VOA Back Lot

**Sample Identifier:** MW-101

**Lab Sample ID:** 200044-02

**Date Sampled:** 1/3/2020

**Matrix:** Groundwater

**Date Received:** 1/3/2020

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>81.2</b>	59.6 - 114		1/8/2020	01:01
2-Fluorobiphenyl	<b>56.4</b>	36.2 - 99.1		1/8/2020	01:01
2-Fluorophenol	<b>37.6</b>	14.9 - 105		1/8/2020	01:01
Nitrobenzene-d5	<b>65.4</b>	53.7 - 102		1/8/2020	01:01
Phenol-d5	<b>23.9</b>	10 - 106		1/8/2020	01:01
Terphenyl-d14	<b>72.6</b>	58.7 - 116		1/8/2020	01:01

**Method Reference(s):** EPA 8270D

EPA 3510C

**Preparation Date:** 1/6/2020

**Data File:** B43608.D

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*Report Prepared Thursday, January 16, 2020*



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-101

Lab Sample ID: 200044-02

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 2.00	ug/L		1/6/2020 22:44
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		1/6/2020 22:44
1,1,2-Trichloroethane	< 2.00	ug/L		1/6/2020 22:44
1,1-Dichloroethane	< 2.00	ug/L		1/6/2020 22:44
1,1-Dichloroethene	< 2.00	ug/L		1/6/2020 22:44
1,2,3-Trichlorobenzene	< 5.00	ug/L		1/6/2020 22:44
1,2,4-Trichlorobenzene	< 5.00	ug/L		1/6/2020 22:44
1,2,4-Trimethylbenzene	< 2.00	ug/L		1/6/2020 22:44
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		1/6/2020 22:44
1,2-Dibromoethane	< 2.00	ug/L		1/6/2020 22:44
1,2-Dichlorobenzene	< 2.00	ug/L		1/6/2020 22:44
1,2-Dichloroethane	< 2.00	ug/L		1/6/2020 22:44
1,2-Dichloropropane	< 2.00	ug/L		1/6/2020 22:44
1,3,5-Trimethylbenzene	< 2.00	ug/L		1/6/2020 22:44
1,3-Dichlorobenzene	< 2.00	ug/L		1/6/2020 22:44
1,4-Dichlorobenzene	< 2.00	ug/L		1/6/2020 22:44
1,4-Dioxane	< 20.0	ug/L		1/6/2020 22:44
2-Butanone	< 10.0	ug/L		1/6/2020 22:44
2-Hexanone	< 5.00	ug/L		1/6/2020 22:44
4-Methyl-2-pentanone	< 5.00	ug/L		1/6/2020 22:44
Acetone	< 10.0	ug/L		1/6/2020 22:44
Benzene	< 1.00	ug/L		1/6/2020 22:44
Bromochloromethane	< 5.00	ug/L		1/6/2020 22:44

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-101

Lab Sample ID: 200044-02

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

Bromodichloromethane	< 2.00	ug/L	1/6/2020 22:44
Bromoform	< 5.00	ug/L	1/6/2020 22:44
Bromomethane	< 2.00	ug/L	1/6/2020 22:44
Carbon disulfide	< 2.00	ug/L	1/6/2020 22:44
Carbon Tetrachloride	< 2.00	ug/L	1/6/2020 22:44
Chlorobenzene	< 2.00	ug/L	1/6/2020 22:44
Chloroethane	< 2.00	ug/L	1/6/2020 22:44
Chloroform	< 2.00	ug/L	1/6/2020 22:44
Chloromethane	< 2.00	ug/L	1/6/2020 22:44
cis-1,2-Dichloroethene	< 2.00	ug/L	1/6/2020 22:44
cis-1,3-Dichloropropene	< 2.00	ug/L	1/6/2020 22:44
Cyclohexane	< 10.0	ug/L	1/6/2020 22:44
Dibromochloromethane	< 2.00	ug/L	1/6/2020 22:44
Dichlorodifluoromethane	< 2.00	ug/L	1/6/2020 22:44
Ethylbenzene	< 2.00	ug/L	1/6/2020 22:44
Freon 113	< 2.00	ug/L	1/6/2020 22:44
Isopropylbenzene	< 2.00	ug/L	1/6/2020 22:44
m,p-Xylene	< 2.00	ug/L	1/6/2020 22:44
Methyl acetate	< 2.00	ug/L	1/6/2020 22:44
Methyl tert-butyl Ether	< 2.00	ug/L	1/6/2020 22:44
Methylcyclohexane	< 2.00	ug/L	1/6/2020 22:44
Methylene chloride	< 5.00	ug/L	1/6/2020 22:44
Naphthalene	< 5.00	ug/L	1/6/2020 22:44
n-Butylbenzene	< 2.00	ug/L	1/6/2020 22:44
n-Propylbenzene	< 2.00	ug/L	1/6/2020 22:44

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-101				
Lab Sample ID:	200044-02			Date Sampled:	1/3/2020
Matrix:	Groundwater			Date Received:	1/3/2020
o-Xylene	< 2.00	ug/L		1/6/2020	22:44
p-Isopropyltoluene	< 2.00	ug/L		1/6/2020	22:44
sec-Butylbenzene	< 2.00	ug/L		1/6/2020	22:44
Styrene	< 5.00	ug/L		1/6/2020	22:44
tert-Butylbenzene	< 2.00	ug/L		1/6/2020	22:44
Tetrachloroethene	< 2.00	ug/L		1/6/2020	22:44
Toluene	< 2.00	ug/L		1/6/2020	22:44
trans-1,2-Dichloroethene	< 2.00	ug/L		1/6/2020	22:44
trans-1,3-Dichloropropene	< 2.00	ug/L		1/6/2020	22:44
Trichloroethene	< 2.00	ug/L		1/6/2020	22:44
Trichlorofluoromethane	< 2.00	ug/L		1/6/2020	22:44
Vinyl chloride	< 2.00	ug/L		1/6/2020	22:44
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>112</b>	74.3 - 138		1/6/2020 22:44
4-Bromofluorobenzene		<b>84.8</b>	66.3 - 125		1/6/2020 22:44
Pentafluorobenzene		<b>94.6</b>	87.4 - 111		1/6/2020 22:44
Toluene-D8		<b>89.9</b>	85.8 - 113		1/6/2020 22:44

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x67670.D

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

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Sample Identifier: MW-103

Lab Sample ID: 200044-03

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

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**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	< 0.000200	mg/L		1/8/2020 10:23

Method Reference(s): EPA 7470A

Preparation Date: 1/7/2020

Data File: Hg200108A

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-103

Lab Sample ID: 200044-03

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	< 0.100	mg/L		1/7/2020 18:21
Antimony	< 0.0600	mg/L		1/7/2020 18:21
Arsenic	< 0.0100	mg/L		1/7/2020 18:21
Barium	<b>0.277</b>	mg/L		1/7/2020 18:21
Beryllium	< 0.00500	mg/L		1/7/2020 18:21
Cadmium	< 0.00500	mg/L		1/7/2020 18:21
Calcium	<b>180</b>	mg/L		1/7/2020 18:21
Chromium	< 0.0100	mg/L		1/7/2020 18:21
Cobalt	< 0.0500	mg/L		1/7/2020 18:21
Copper	< 0.0200	mg/L		1/7/2020 18:21
Iron	<b>9.35</b>	mg/L		1/7/2020 18:21
Lead	< 0.0100	mg/L		1/7/2020 18:21
Magnesium	<b>39.0</b>	mg/L		1/7/2020 18:21
Manganese	<b>0.470</b>	mg/L		1/7/2020 18:21
Nickel	< 0.0400	mg/L		1/7/2020 18:21
Potassium	<b>10.2</b>	mg/L		1/7/2020 18:21
Selenium	< 0.0200	mg/L		1/7/2020 18:21
Silver	< 0.0100	mg/L		1/7/2020 18:21
Sodium	<b>181</b>	mg/L		1/7/2020 18:21
Thallium	< 0.0250	mg/L		1/7/2020 18:21
Vanadium	< 0.0250	mg/L		1/7/2020 18:21
Zinc	<b>0.0389</b>	mg/L	J	1/7/2020 18:21

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Report Prepared Thursday, January 16, 2020



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 200044

**Client:** **Bergmann Associates**

**Project Reference:** VOA Back Lot

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**Sample Identifier:** MW-103

**Lab Sample ID:** 200044-03

**Date Sampled:** 1/3/2020

**Matrix:** Groundwater

**Date Received:** 1/3/2020

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 1/6/2020

**Data File:** 200107C

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*Report Prepared Thursday, January 16, 2020*



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-103

Lab Sample ID: 200044-03

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		1/8/2020 01:30
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		1/8/2020 01:30
1,2,4-Trichlorobenzene	< 10.0	ug/L		1/8/2020 01:30
1,2-Dichlorobenzene	< 10.0	ug/L		1/8/2020 01:30
1,3-Dichlorobenzene	< 10.0	ug/L		1/8/2020 01:30
1,4-Dichlorobenzene	< 10.0	ug/L		1/8/2020 01:30
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		1/8/2020 01:30
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		1/8/2020 01:30
2,4,5-Trichlorophenol	< 20.0	ug/L		1/8/2020 01:30
2,4,6-Trichlorophenol	< 10.0	ug/L		1/8/2020 01:30
2,4-Dichlorophenol	< 10.0	ug/L		1/8/2020 01:30
2,4-Dimethylphenol	< 20.0	ug/L		1/8/2020 01:30
2,4-Dinitrophenol	< 20.0	ug/L		1/8/2020 01:30
2,4-Dinitrotoluene	< 10.0	ug/L		1/8/2020 01:30
2,6-Dinitrotoluene	< 10.0	ug/L		1/8/2020 01:30
2-Chloronaphthalene	< 10.0	ug/L		1/8/2020 01:30
2-Chlorophenol	< 10.0	ug/L		1/8/2020 01:30
2-Methylnaphthalene	< 10.0	ug/L		1/8/2020 01:30
2-Methylphenol	< 10.0	ug/L		1/8/2020 01:30
2-Nitroaniline	< 20.0	ug/L		1/8/2020 01:30
2-Nitrophenol	< 10.0	ug/L		1/8/2020 01:30
3&4-Methylphenol	< 10.0	ug/L		1/8/2020 01:30
3,3'-Dichlorobenzidine	< 10.0	ug/L		1/8/2020 01:30

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-103		
Lab Sample ID:	200044-03	Date Sampled:	1/3/2020
Matrix:	Groundwater	Date Received:	1/3/2020
3-Nitroaniline	< 20.0	ug/L	1/8/2020 01:30
4,6-Dinitro-2-methylphenol	< 20.0	ug/L	1/8/2020 01:30
4-Bromophenyl phenyl ether	< 10.0	ug/L	1/8/2020 01:30
4-Chloro-3-methylphenol	< 10.0	ug/L	1/8/2020 01:30
4-Chloroaniline	< 10.0	ug/L	1/8/2020 01:30
4-Chlorophenyl phenyl ether	< 10.0	ug/L	1/8/2020 01:30
4-Nitroaniline	< 20.0	ug/L	1/8/2020 01:30
4-Nitrophenol	< 20.0	ug/L	1/8/2020 01:30
Acenaphthene	< 10.0	ug/L	1/8/2020 01:30
Acenaphthylene	< 10.0	ug/L	1/8/2020 01:30
Acetophenone	< 10.0	ug/L	1/8/2020 01:30
Anthracene	< 10.0	ug/L	1/8/2020 01:30
Atrazine	< 10.0	ug/L	1/8/2020 01:30
Benzaldehyde	< 10.0	ug/L	1/8/2020 01:30
Benzo (a) anthracene	< 10.0	ug/L	1/8/2020 01:30
Benzo (a) pyrene	< 10.0	ug/L	1/8/2020 01:30
Benzo (b) fluoranthene	< 10.0	ug/L	1/8/2020 01:30
Benzo (g,h,i) perylene	< 10.0	ug/L	1/8/2020 01:30
Benzo (k) fluoranthene	< 10.0	ug/L	1/8/2020 01:30
Bis (2-chloroethoxy) methane	< 10.0	ug/L	1/8/2020 01:30
Bis (2-chloroethyl) ether	< 10.0	ug/L	1/8/2020 01:30
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	1/8/2020 01:30
Butylbenzylphthalate	< 10.0	ug/L	1/8/2020 01:30
Caprolactam	< 10.0	ug/L	1/8/2020 01:30
Carbazole	< 10.0	ug/L	1/8/2020 01:30

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-103		
Lab Sample ID:	200044-03	Date Sampled:	1/3/2020
Matrix:	Groundwater	Date Received:	1/3/2020
Chrysene	< 10.0	ug/L	1/8/2020 01:30
Dibenz (a,h) anthracene	< 10.0	ug/L	1/8/2020 01:30
Dibenzofuran	< 10.0	ug/L	1/8/2020 01:30
Diethyl phthalate	< 10.0	ug/L	1/8/2020 01:30
Dimethyl phthalate	< 20.0	ug/L	1/8/2020 01:30
Di-n-butyl phthalate	< 10.0	ug/L	1/8/2020 01:30
Di-n-octylphthalate	< 10.0	ug/L	1/8/2020 01:30
Fluoranthene	< 10.0	ug/L	1/8/2020 01:30
Fluorene	< 10.0	ug/L	1/8/2020 01:30
Hexachlorobenzene	< 10.0	ug/L	1/8/2020 01:30
Hexachlorobutadiene	< 10.0	ug/L	1/8/2020 01:30
Hexachlorocyclopentadiene	< 10.0	ug/L	1/8/2020 01:30
Hexachloroethane	< 10.0	ug/L	1/8/2020 01:30
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	1/8/2020 01:30
Isophorone	< 10.0	ug/L	1/8/2020 01:30
Naphthalene	< 10.0	ug/L	1/8/2020 01:30
Nitrobenzene	< 10.0	ug/L	1/8/2020 01:30
N-Nitroso-di-n-propylamine	< 10.0	ug/L	1/8/2020 01:30
N-Nitrosodiphenylamine	< 10.0	ug/L	1/8/2020 01:30
Pentachlorophenol	< 20.0	ug/L	1/8/2020 01:30
Phenanthrene	< 10.0	ug/L	1/8/2020 01:30
Phenol	< 10.0	ug/L	1/8/2020 01:30
Pyrene	< 10.0	ug/L	1/8/2020 01:30

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Report Prepared Thursday, January 16, 2020



**Lab Project ID:** 200044

**Client:** **Bergmann Associates**

**Project Reference:** VOA Back Lot

**Sample Identifier:** MW-103

**Lab Sample ID:** 200044-03

**Date Sampled:** 1/3/2020

**Matrix:** Groundwater

**Date Received:** 1/3/2020

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>91.1</b>	59.6 - 114		1/8/2020	01:30
2-Fluorobiphenyl	<b>67.0</b>	36.2 - 99.1		1/8/2020	01:30
2-Fluorophenol	<b>41.4</b>	14.9 - 105		1/8/2020	01:30
Nitrobenzene-d5	<b>71.5</b>	53.7 - 102		1/8/2020	01:30
Phenol-d5	<b>26.0</b>	10 - 106		1/8/2020	01:30
Terphenyl-d14	<b>81.3</b>	58.7 - 116		1/8/2020	01:30

**Method Reference(s):** EPA 8270D

EPA 3510C

**Preparation Date:** 1/6/2020

**Data File:** B43609.D

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*Report Prepared Thursday, January 16, 2020*



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-103

Lab Sample ID: 200044-03

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 2.00	ug/L		1/7/2020 15:33
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		1/7/2020 15:33
1,1,2-Trichloroethane	< 2.00	ug/L		1/7/2020 15:33
1,1-Dichloroethane	< 2.00	ug/L		1/7/2020 15:33
1,1-Dichloroethene	< 2.00	ug/L		1/7/2020 15:33
1,2,3-Trichlorobenzene	< 5.00	ug/L		1/7/2020 15:33
1,2,4-Trichlorobenzene	< 5.00	ug/L		1/7/2020 15:33
1,2,4-Trimethylbenzene	< 2.00	ug/L		1/7/2020 15:33
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		1/7/2020 15:33
1,2-Dibromoethane	< 2.00	ug/L		1/7/2020 15:33
1,2-Dichlorobenzene	< 2.00	ug/L		1/7/2020 15:33
1,2-Dichloroethane	< 2.00	ug/L		1/7/2020 15:33
1,2-Dichloropropane	< 2.00	ug/L		1/7/2020 15:33
1,3,5-Trimethylbenzene	< 2.00	ug/L		1/7/2020 15:33
1,3-Dichlorobenzene	< 2.00	ug/L		1/7/2020 15:33
1,4-Dichlorobenzene	< 2.00	ug/L		1/7/2020 15:33
1,4-Dioxane	< 20.0	ug/L		1/7/2020 15:33
2-Butanone	< 10.0	ug/L		1/7/2020 15:33
2-Hexanone	< 5.00	ug/L		1/7/2020 15:33
4-Methyl-2-pentanone	< 5.00	ug/L		1/7/2020 15:33
Acetone	< 10.0	ug/L		1/7/2020 15:33
Benzene	< 1.00	ug/L		1/7/2020 15:33
Bromochloromethane	< 5.00	ug/L		1/7/2020 15:33

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-103		
Lab Sample ID:	200044-03	Date Sampled:	1/3/2020
Matrix:	Groundwater	Date Received:	1/3/2020
Bromodichloromethane	< 2.00	ug/L	1/7/2020 15:33
Bromoform	< 5.00	ug/L	1/7/2020 15:33
Bromomethane	< 2.00	ug/L	1/7/2020 15:33
Carbon disulfide	< 2.00	ug/L	1/7/2020 15:33
Carbon Tetrachloride	< 2.00	ug/L	1/7/2020 15:33
Chlorobenzene	< 2.00	ug/L	1/7/2020 15:33
Chloroethane	< 2.00	ug/L	1/7/2020 15:33
Chloroform	< 2.00	ug/L	1/7/2020 15:33
Chloromethane	< 2.00	ug/L	1/7/2020 15:33
cis-1,2-Dichloroethene	< 2.00	ug/L	1/7/2020 15:33
cis-1,3-Dichloropropene	< 2.00	ug/L	1/7/2020 15:33
Cyclohexane	< 10.0	ug/L	1/7/2020 15:33
Dibromochloromethane	< 2.00	ug/L	1/7/2020 15:33
Dichlorodifluoromethane	< 2.00	ug/L	1/7/2020 15:33
Ethylbenzene	< 2.00	ug/L	1/7/2020 15:33
Freon 113	< 2.00	ug/L	1/7/2020 15:33
Isopropylbenzene	< 2.00	ug/L	1/7/2020 15:33
m,p-Xylene	< 2.00	ug/L	1/7/2020 15:33
Methyl acetate	< 2.00	ug/L	1/7/2020 15:33
Methyl tert-butyl Ether	< 2.00	ug/L	1/7/2020 15:33
Methylcyclohexane	< 2.00	ug/L	1/7/2020 15:33
Methylene chloride	< 5.00	ug/L	1/7/2020 15:33
Naphthalene	< 5.00	ug/L	1/7/2020 15:33
n-Butylbenzene	< 2.00	ug/L	1/7/2020 15:33
n-Propylbenzene	< 2.00	ug/L	1/7/2020 15:33

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-103				
Lab Sample ID:	200044-03			Date Sampled:	1/3/2020
Matrix:	Groundwater			Date Received:	1/3/2020
o-Xylene	< 2.00	ug/L		1/7/2020	15:33
p-Isopropyltoluene	< 2.00	ug/L		1/7/2020	15:33
sec-Butylbenzene	< 2.00	ug/L		1/7/2020	15:33
Styrene	< 5.00	ug/L		1/7/2020	15:33
tert-Butylbenzene	< 2.00	ug/L		1/7/2020	15:33
Tetrachloroethene	< 2.00	ug/L		1/7/2020	15:33
Toluene	< 2.00	ug/L		1/7/2020	15:33
trans-1,2-Dichloroethene	< 2.00	ug/L		1/7/2020	15:33
trans-1,3-Dichloropropene	< 2.00	ug/L		1/7/2020	15:33
Trichloroethene	< 2.00	ug/L		1/7/2020	15:33
Trichlorofluoromethane	< 2.00	ug/L		1/7/2020	15:33
Vinyl chloride	< 2.00	ug/L		1/7/2020	15:33
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>113</b>	74.3 - 138		1/7/2020 15:33
4-Bromofluorobenzene		<b>82.6</b>	66.3 - 125		1/7/2020 15:33
Pentafluorobenzene		<b>97.5</b>	87.4 - 111		1/7/2020 15:33
Toluene-D8		<b>90.2</b>	85.8 - 113		1/7/2020 15:33

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x67685.D

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

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Sample Identifier: MW-107

Lab Sample ID: 200044-04

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

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**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	< 0.000200	mg/L		1/8/2020 10:25

Method Reference(s): EPA 7470A

Preparation Date: 1/7/2020

Data File: Hg200108A

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-107

Lab Sample ID: 200044-04

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	< 0.100	mg/L		1/7/2020 18:26
Antimony	< 0.0600	mg/L		1/7/2020 18:26
Arsenic	< 0.0100	mg/L		1/7/2020 18:26
Barium	<b>0.111</b>	mg/L		1/7/2020 18:26
Beryllium	< 0.00500	mg/L		1/7/2020 18:26
Cadmium	< 0.00500	mg/L		1/7/2020 18:26
Calcium	<b>254</b>	mg/L		1/7/2020 18:26
Chromium	< 0.0100	mg/L		1/7/2020 18:26
Cobalt	< 0.0500	mg/L		1/7/2020 18:26
Copper	< 0.0200	mg/L		1/7/2020 18:26
Iron	<b>4.54</b>	mg/L		1/7/2020 18:26
Lead	< 0.0100	mg/L		1/7/2020 18:26
Magnesium	<b>40.5</b>	mg/L		1/7/2020 18:26
Manganese	<b>0.397</b>	mg/L		1/7/2020 18:26
Nickel	< 0.0400	mg/L		1/7/2020 18:26
Potassium	<b>8.28</b>	mg/L		1/7/2020 18:26
Selenium	< 0.0200	mg/L		1/14/2020 15:33
Silver	< 0.0100	mg/L		1/7/2020 18:26
Sodium	<b>66.3</b>	mg/L		1/7/2020 18:26
Thallium	< 0.0250	mg/L		1/7/2020 18:26
Vanadium	< 0.0250	mg/L		1/7/2020 18:26
Zinc	<b>0.0338</b>	mg/L	J	1/7/2020 18:26

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Report Prepared Thursday, January 16, 2020



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 200044

**Client:** **Bergmann Associates**

**Project Reference:** VOA Back Lot

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**Sample Identifier:** MW-107

**Lab Sample ID:** 200044-04

**Date Sampled:** 1/3/2020

**Matrix:** Groundwater

**Date Received:** 1/3/2020

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 1/6/2020

**Data File:** 200107C

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*Report Prepared Thursday, January 16, 2020*



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-107

Lab Sample ID: 200044-04

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.1	ug/L		1/8/2020 01:59
1,2,4,5-Tetrachlorobenzene	< 10.1	ug/L		1/8/2020 01:59
1,2,4-Trichlorobenzene	< 10.1	ug/L		1/8/2020 01:59
1,2-Dichlorobenzene	< 10.1	ug/L		1/8/2020 01:59
1,3-Dichlorobenzene	< 10.1	ug/L		1/8/2020 01:59
1,4-Dichlorobenzene	< 10.1	ug/L		1/8/2020 01:59
2,2-Oxybis (1-chloropropane)	< 10.1	ug/L		1/8/2020 01:59
2,3,4,6-Tetrachlorophenol	< 10.1	ug/L		1/8/2020 01:59
2,4,5-Trichlorophenol	< 20.2	ug/L		1/8/2020 01:59
2,4,6-Trichlorophenol	< 10.1	ug/L		1/8/2020 01:59
2,4-Dichlorophenol	< 10.1	ug/L		1/8/2020 01:59
2,4-Dimethylphenol	< 20.2	ug/L		1/8/2020 01:59
2,4-Dinitrophenol	< 20.2	ug/L		1/8/2020 01:59
2,4-Dinitrotoluene	< 10.1	ug/L		1/8/2020 01:59
2,6-Dinitrotoluene	< 10.1	ug/L		1/8/2020 01:59
2-Chloronaphthalene	< 10.1	ug/L		1/8/2020 01:59
2-Chlorophenol	< 10.1	ug/L		1/8/2020 01:59
2-Methylnapthalene	< 10.1	ug/L		1/8/2020 01:59
2-Methylphenol	< 10.1	ug/L		1/8/2020 01:59
2-Nitroaniline	< 20.2	ug/L		1/8/2020 01:59
2-Nitrophenol	< 10.1	ug/L		1/8/2020 01:59
3&4-Methylphenol	< 10.1	ug/L		1/8/2020 01:59
3,3'-Dichlorobenzidine	< 10.1	ug/L		1/8/2020 01:59

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-107			
Lab Sample ID:	200044-04		Date Sampled:	1/3/2020
Matrix:	Groundwater		Date Received:	1/3/2020
3-Nitroaniline	< 20.2	ug/L	1/8/2020	01:59
4,6-Dinitro-2-methylphenol	< 20.2	ug/L	1/8/2020	01:59
4-Bromophenyl phenyl ether	< 10.1	ug/L	1/8/2020	01:59
4-Chloro-3-methylphenol	< 10.1	ug/L	1/8/2020	01:59
4-Chloroaniline	< 10.1	ug/L	1/8/2020	01:59
4-Chlorophenyl phenyl ether	< 10.1	ug/L	1/8/2020	01:59
4-Nitroaniline	< 20.2	ug/L	1/8/2020	01:59
4-Nitrophenol	< 20.2	ug/L	1/8/2020	01:59
Acenaphthene	< 10.1	ug/L	1/8/2020	01:59
Acenaphthylene	< 10.1	ug/L	1/8/2020	01:59
Acetophenone	< 10.1	ug/L	1/8/2020	01:59
Anthracene	< 10.1	ug/L	1/8/2020	01:59
Atrazine	< 10.1	ug/L	1/8/2020	01:59
Benzaldehyde	< 10.1	ug/L	1/8/2020	01:59
Benzo (a) anthracene	< 10.1	ug/L	1/8/2020	01:59
Benzo (a) pyrene	< 10.1	ug/L	1/8/2020	01:59
Benzo (b) fluoranthene	< 10.1	ug/L	1/8/2020	01:59
Benzo (g,h,i) perylene	< 10.1	ug/L	1/8/2020	01:59
Benzo (k) fluoranthene	< 10.1	ug/L	1/8/2020	01:59
Bis (2-chloroethoxy) methane	< 10.1	ug/L	1/8/2020	01:59
Bis (2-chloroethyl) ether	< 10.1	ug/L	1/8/2020	01:59
Bis (2-ethylhexyl) phthalate	< 10.1	ug/L	1/8/2020	01:59
Butylbenzylphthalate	< 10.1	ug/L	1/8/2020	01:59
Caprolactam	< 10.1	ug/L	1/8/2020	01:59
Carbazole	< 10.1	ug/L	1/8/2020	01:59

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-107		
Lab Sample ID:	200044-04	Date Sampled:	1/3/2020
Matrix:	Groundwater	Date Received:	1/3/2020
Chrysene	< 10.1	ug/L	1/8/2020 01:59
Dibenz (a,h) anthracene	< 10.1	ug/L	1/8/2020 01:59
Dibenzofuran	< 10.1	ug/L	1/8/2020 01:59
Diethyl phthalate	< 10.1	ug/L	1/8/2020 01:59
Dimethyl phthalate	< 20.2	ug/L	1/8/2020 01:59
Di-n-butyl phthalate	< 10.1	ug/L	1/8/2020 01:59
Di-n-octylphthalate	< 10.1	ug/L	1/8/2020 01:59
Fluoranthene	< 10.1	ug/L	1/8/2020 01:59
Fluorene	< 10.1	ug/L	1/8/2020 01:59
Hexachlorobenzene	< 10.1	ug/L	1/8/2020 01:59
Hexachlorobutadiene	< 10.1	ug/L	1/8/2020 01:59
Hexachlorocyclopentadiene	< 10.1	ug/L	1/8/2020 01:59
Hexachloroethane	< 10.1	ug/L	1/8/2020 01:59
Indeno (1,2,3-cd) pyrene	< 10.1	ug/L	1/8/2020 01:59
Isophorone	< 10.1	ug/L	1/8/2020 01:59
Naphthalene	< 10.1	ug/L	1/8/2020 01:59
Nitrobenzene	< 10.1	ug/L	1/8/2020 01:59
N-Nitroso-di-n-propylamine	< 10.1	ug/L	1/8/2020 01:59
N-Nitrosodiphenylamine	< 10.1	ug/L	1/8/2020 01:59
Pentachlorophenol	< 20.2	ug/L	1/8/2020 01:59
Phenanthrene	< 10.1	ug/L	1/8/2020 01:59
Phenol	< 10.1	ug/L	1/8/2020 01:59
Pyrene	< 10.1	ug/L	1/8/2020 01:59

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Report Prepared Thursday, January 16, 2020



**Lab Project ID:** 200044

**Client:** **Bergmann Associates**

**Project Reference:** VOA Back Lot

**Sample Identifier:** MW-107

**Lab Sample ID:** 200044-04

**Date Sampled:** 1/3/2020

**Matrix:** Groundwater

**Date Received:** 1/3/2020

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>89.9</b>	59.6 - 114		1/8/2020	01:59
2-Fluorobiphenyl	<b>69.1</b>	36.2 - 99.1		1/8/2020	01:59
2-Fluorophenol	<b>33.6</b>	14.9 - 105		1/8/2020	01:59
Nitrobenzene-d5	<b>75.1</b>	53.7 - 102		1/8/2020	01:59
Phenol-d5	<b>21.6</b>	10 - 106		1/8/2020	01:59
Terphenyl-d14	<b>78.1</b>	58.7 - 116		1/8/2020	01:59

**Method Reference(s):** EPA 8270D

EPA 3510C

**Preparation Date:** 1/6/2020

**Data File:** B43610.D

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*Report Prepared Thursday, January 16, 2020*



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-107

Lab Sample ID: 200044-04

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 2.00	ug/L		1/7/2020 15:55
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		1/7/2020 15:55
1,1,2-Trichloroethane	< 2.00	ug/L		1/7/2020 15:55
1,1-Dichloroethane	< 2.00	ug/L		1/7/2020 15:55
1,1-Dichloroethene	< 2.00	ug/L		1/7/2020 15:55
1,2,3-Trichlorobenzene	< 5.00	ug/L		1/7/2020 15:55
1,2,4-Trichlorobenzene	< 5.00	ug/L		1/7/2020 15:55
1,2,4-Trimethylbenzene	< 2.00	ug/L		1/7/2020 15:55
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		1/7/2020 15:55
1,2-Dibromoethane	< 2.00	ug/L		1/7/2020 15:55
1,2-Dichlorobenzene	< 2.00	ug/L		1/7/2020 15:55
1,2-Dichloroethane	< 2.00	ug/L		1/7/2020 15:55
1,2-Dichloropropane	< 2.00	ug/L		1/7/2020 15:55
1,3,5-Trimethylbenzene	< 2.00	ug/L		1/7/2020 15:55
1,3-Dichlorobenzene	< 2.00	ug/L		1/7/2020 15:55
1,4-Dichlorobenzene	< 2.00	ug/L		1/7/2020 15:55
1,4-Dioxane	< 20.0	ug/L		1/7/2020 15:55
2-Butanone	< 10.0	ug/L		1/7/2020 15:55
2-Hexanone	< 5.00	ug/L		1/7/2020 15:55
4-Methyl-2-pentanone	< 5.00	ug/L		1/7/2020 15:55
Acetone	< 10.0	ug/L		1/7/2020 15:55
Benzene	< 1.00	ug/L		1/7/2020 15:55
Bromochloromethane	< 5.00	ug/L		1/7/2020 15:55

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-107

Lab Sample ID: 200044-04

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

Bromodichloromethane	< 2.00	ug/L	1/7/2020 15:55
Bromoform	< 5.00	ug/L	1/7/2020 15:55
Bromomethane	< 2.00	ug/L	1/7/2020 15:55
Carbon disulfide	< 2.00	ug/L	1/7/2020 15:55
Carbon Tetrachloride	< 2.00	ug/L	1/7/2020 15:55
Chlorobenzene	< 2.00	ug/L	1/7/2020 15:55
Chloroethane	< 2.00	ug/L	1/7/2020 15:55
Chloroform	< 2.00	ug/L	1/7/2020 15:55
Chloromethane	< 2.00	ug/L	1/7/2020 15:55
cis-1,2-Dichloroethene	< 2.00	ug/L	1/7/2020 15:55
cis-1,3-Dichloropropene	< 2.00	ug/L	1/7/2020 15:55
Cyclohexane	< 10.0	ug/L	1/7/2020 15:55
Dibromochloromethane	< 2.00	ug/L	1/7/2020 15:55
Dichlorodifluoromethane	< 2.00	ug/L	1/7/2020 15:55
Ethylbenzene	< 2.00	ug/L	1/7/2020 15:55
Freon 113	< 2.00	ug/L	1/7/2020 15:55
Isopropylbenzene	< 2.00	ug/L	1/7/2020 15:55
m,p-Xylene	< 2.00	ug/L	1/7/2020 15:55
Methyl acetate	< 2.00	ug/L	1/7/2020 15:55
Methyl tert-butyl Ether	< 2.00	ug/L	1/7/2020 15:55
Methylcyclohexane	< 2.00	ug/L	1/7/2020 15:55
Methylene chloride	< 5.00	ug/L	1/7/2020 15:55
Naphthalene	< 5.00	ug/L	1/7/2020 15:55
n-Butylbenzene	< 2.00	ug/L	1/7/2020 15:55
n-Propylbenzene	< 2.00	ug/L	1/7/2020 15:55

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

<b>Sample Identifier:</b>		MW-107			
<b>Lab Sample ID:</b>		200044-04		<b>Date Sampled:</b>	1/3/2020
<b>Matrix:</b>		Groundwater		<b>Date Received:</b>	1/3/2020
<hr/>					
o-Xylene	< 2.00	ug/L		1/7/2020	15:55
p-Isopropyltoluene	< 2.00	ug/L		1/7/2020	15:55
sec-Butylbenzene	< 2.00	ug/L		1/7/2020	15:55
Styrene	< 5.00	ug/L		1/7/2020	15:55
tert-Butylbenzene	< 2.00	ug/L		1/7/2020	15:55
Tetrachloroethene	< 2.00	ug/L		1/7/2020	15:55
Toluene	< 2.00	ug/L		1/7/2020	15:55
trans-1,2-Dichloroethene	< 2.00	ug/L		1/7/2020	15:55
trans-1,3-Dichloropropene	< 2.00	ug/L		1/7/2020	15:55
Trichloroethene	< 2.00	ug/L		1/7/2020	15:55
Trichlorofluoromethane	< 2.00	ug/L		1/7/2020	15:55
Vinyl chloride	< 2.00	ug/L		1/7/2020	15:55
<hr/>					
<b>Surrogate</b>	<b>Percent Recovery</b>		<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>121</b>		74.3 - 138		1/7/2020 15:55
4-Bromofluorobenzene	<b>78.9</b>		66.3 - 125		1/7/2020 15:55
Pentafluorobenzene	<b>98.5</b>		87.4 - 111		1/7/2020 15:55
Toluene-D8	<b>89.3</b>		85.8 - 113		1/7/2020 15:55

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x67686.D

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Report Prepared Thursday, January 16, 2020



**Lab Project ID:** 200044

**Client:** **Bergmann Associates**

**Project Reference:** VOA Back Lot

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**Sample Identifier:** MW-10

**Lab Sample ID:** 200044-05

**Date Sampled:** 1/3/2020

**Matrix:** Groundwater

**Date Received:** 1/3/2020

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	<b>0.00105</b>	mg/L		1/8/2020 10:27

**Method Reference(s):** EPA 7470A

**Preparation Date:** 1/7/2020

**Data File:** Hg200108A

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*Report Prepared Thursday, January 16, 2020*



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-10

Lab Sample ID: 200044-05

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	<b>0.598</b>	mg/L		1/7/2020 18:39
Antimony	< 0.0600	mg/L		1/7/2020 18:39
Arsenic	< 0.0100	mg/L		1/7/2020 18:39
Barium	<b>0.129</b>	mg/L		1/7/2020 18:39
Beryllium	< 0.00500	mg/L		1/7/2020 18:39
Cadmium	< 0.00500	mg/L		1/7/2020 18:39
Calcium	<b>258</b>	mg/L		1/7/2020 18:39
Chromium	< 0.0100	mg/L		1/7/2020 18:39
Cobalt	< 0.0500	mg/L		1/7/2020 18:39
Copper	<b>0.0218</b>	mg/L		1/7/2020 18:39
Iron	<b>6.22</b>	mg/L		1/7/2020 18:39
Lead	<b>0.0666</b>	mg/L		1/7/2020 18:39
Magnesium	<b>41.3</b>	mg/L		1/7/2020 18:39
Manganese	<b>0.432</b>	mg/L		1/7/2020 18:39
Nickel	< 0.0400	mg/L		1/7/2020 18:39
Potassium	<b>8.53</b>	mg/L		1/7/2020 18:39
Selenium	< 0.0200	mg/L		1/14/2020 15:38
Silver	< 0.0100	mg/L		1/7/2020 18:39
Sodium	<b>71.3</b>	mg/L		1/7/2020 18:39
Thallium	< 0.0250	mg/L		1/7/2020 18:39
Vanadium	< 0.0250	mg/L		1/7/2020 18:39
Zinc	<b>0.0685</b>	mg/L		1/7/2020 18:39

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Report Prepared Thursday, January 16, 2020



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 200044

**Client:** **Bergmann Associates**

**Project Reference:** VOA Back Lot

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**Sample Identifier:** MW-10

**Lab Sample ID:** 200044-05

**Date Sampled:** 1/3/2020

**Matrix:** Groundwater

**Date Received:** 1/3/2020

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 1/6/2020

**Data File:** 200107C

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*Report Prepared Thursday, January 16, 2020*



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-10

Lab Sample ID: 200044-05

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.1	ug/L		1/8/2020 02:28
1,2,4,5-Tetrachlorobenzene	< 10.1	ug/L		1/8/2020 02:28
1,2,4-Trichlorobenzene	< 10.1	ug/L		1/8/2020 02:28
1,2-Dichlorobenzene	< 10.1	ug/L		1/8/2020 02:28
1,3-Dichlorobenzene	< 10.1	ug/L		1/8/2020 02:28
1,4-Dichlorobenzene	< 10.1	ug/L		1/8/2020 02:28
2,2-Oxybis (1-chloropropane)	< 10.1	ug/L		1/8/2020 02:28
2,3,4,6-Tetrachlorophenol	< 10.1	ug/L		1/8/2020 02:28
2,4,5-Trichlorophenol	< 20.1	ug/L		1/8/2020 02:28
2,4,6-Trichlorophenol	< 10.1	ug/L		1/8/2020 02:28
2,4-Dichlorophenol	< 10.1	ug/L		1/8/2020 02:28
2,4-Dimethylphenol	< 20.1	ug/L		1/8/2020 02:28
2,4-Dinitrophenol	< 20.1	ug/L		1/8/2020 02:28
2,4-Dinitrotoluene	< 10.1	ug/L		1/8/2020 02:28
2,6-Dinitrotoluene	< 10.1	ug/L		1/8/2020 02:28
2-Chloronaphthalene	< 10.1	ug/L		1/8/2020 02:28
2-Chlorophenol	< 10.1	ug/L		1/8/2020 02:28
2-Methylnapthalene	< 10.1	ug/L		1/8/2020 02:28
2-Methylphenol	< 10.1	ug/L		1/8/2020 02:28
2-Nitroaniline	< 20.1	ug/L		1/8/2020 02:28
2-Nitrophenol	< 10.1	ug/L		1/8/2020 02:28
3&4-Methylphenol	< 10.1	ug/L		1/8/2020 02:28
3,3'-Dichlorobenzidine	< 10.1	ug/L		1/8/2020 02:28

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-10		
Lab Sample ID:	200044-05	Date Sampled:	1/3/2020
Matrix:	Groundwater	Date Received:	1/3/2020
3-Nitroaniline	< 20.1	ug/L	1/8/2020 02:28
4,6-Dinitro-2-methylphenol	< 20.1	ug/L	1/8/2020 02:28
4-Bromophenyl phenyl ether	< 10.1	ug/L	1/8/2020 02:28
4-Chloro-3-methylphenol	< 10.1	ug/L	1/8/2020 02:28
4-Chloroaniline	< 10.1	ug/L	1/8/2020 02:28
4-Chlorophenyl phenyl ether	< 10.1	ug/L	1/8/2020 02:28
4-Nitroaniline	< 20.1	ug/L	1/8/2020 02:28
4-Nitrophenol	< 20.1	ug/L	1/8/2020 02:28
Acenaphthene	< 10.1	ug/L	1/8/2020 02:28
Acenaphthylene	< 10.1	ug/L	1/8/2020 02:28
Acetophenone	< 10.1	ug/L	1/8/2020 02:28
Anthracene	< 10.1	ug/L	1/8/2020 02:28
Atrazine	< 10.1	ug/L	1/8/2020 02:28
Benzaldehyde	< 10.1	ug/L	1/8/2020 02:28
Benzo (a) anthracene	< 10.1	ug/L	1/8/2020 02:28
Benzo (a) pyrene	< 10.1	ug/L	1/8/2020 02:28
Benzo (b) fluoranthene	< 10.1	ug/L	1/8/2020 02:28
Benzo (g,h,i) perylene	< 10.1	ug/L	1/8/2020 02:28
Benzo (k) fluoranthene	< 10.1	ug/L	1/8/2020 02:28
Bis (2-chloroethoxy) methane	< 10.1	ug/L	1/8/2020 02:28
Bis (2-chloroethyl) ether	< 10.1	ug/L	1/8/2020 02:28
Bis (2-ethylhexyl) phthalate	< 10.1	ug/L	1/8/2020 02:28
Butylbenzylphthalate	< 10.1	ug/L	1/8/2020 02:28
Caprolactam	< 10.1	ug/L	1/8/2020 02:28
Carbazole	< 10.1	ug/L	1/8/2020 02:28

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-10		
Lab Sample ID:	200044-05	Date Sampled:	1/3/2020
Matrix:	Groundwater	Date Received:	1/3/2020
Chrysene	< 10.1	ug/L	1/8/2020 02:28
Dibenz (a,h) anthracene	< 10.1	ug/L	1/8/2020 02:28
Dibenzofuran	< 10.1	ug/L	1/8/2020 02:28
Diethyl phthalate	< 10.1	ug/L	1/8/2020 02:28
Dimethyl phthalate	< 20.1	ug/L	1/8/2020 02:28
Di-n-butyl phthalate	< 10.1	ug/L	1/8/2020 02:28
Di-n-octylphthalate	< 10.1	ug/L	1/8/2020 02:28
Fluoranthene	< 10.1	ug/L	1/8/2020 02:28
Fluorene	< 10.1	ug/L	1/8/2020 02:28
Hexachlorobenzene	< 10.1	ug/L	1/8/2020 02:28
Hexachlorobutadiene	< 10.1	ug/L	1/8/2020 02:28
Hexachlorocyclopentadiene	< 10.1	ug/L	1/8/2020 02:28
Hexachloroethane	< 10.1	ug/L	1/8/2020 02:28
Indeno (1,2,3-cd) pyrene	< 10.1	ug/L	1/8/2020 02:28
Isophorone	< 10.1	ug/L	1/8/2020 02:28
Naphthalene	< 10.1	ug/L	1/8/2020 02:28
Nitrobenzene	< 10.1	ug/L	1/8/2020 02:28
N-Nitroso-di-n-propylamine	< 10.1	ug/L	1/8/2020 02:28
N-Nitrosodiphenylamine	< 10.1	ug/L	1/8/2020 02:28
Pentachlorophenol	< 20.1	ug/L	1/8/2020 02:28
Phenanthrene	< 10.1	ug/L	1/8/2020 02:28
Phenol	< 10.1	ug/L	1/8/2020 02:28
Pyrene	< 10.1	ug/L	1/8/2020 02:28

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-10

Lab Sample ID: 200044-05

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	98.9	59.6 - 114		1/8/2020 02:28
2-Fluorobiphenyl	76.8	36.2 - 99.1		1/8/2020 02:28
2-Fluorophenol	43.1	14.9 - 105		1/8/2020 02:28
Nitrobenzene-d5	81.1	53.7 - 102		1/8/2020 02:28
Phenol-d5	27.8	10 - 106		1/8/2020 02:28
Terphenyl-d14	84.5	58.7 - 116		1/8/2020 02:28

Method Reference(s): EPA 8270D

EPA 3510C

Preparation Date: 1/6/2020

Data File: B43611.D

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-10

Lab Sample ID: 200044-05

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 2.00	ug/L		1/7/2020 16:18
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		1/7/2020 16:18
1,1,2-Trichloroethane	< 2.00	ug/L		1/7/2020 16:18
1,1-Dichloroethane	< 2.00	ug/L		1/7/2020 16:18
1,1-Dichloroethene	< 2.00	ug/L		1/7/2020 16:18
1,2,3-Trichlorobenzene	< 5.00	ug/L		1/7/2020 16:18
1,2,4-Trichlorobenzene	< 5.00	ug/L		1/7/2020 16:18
1,2,4-Trimethylbenzene	< 2.00	ug/L		1/7/2020 16:18
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		1/7/2020 16:18
1,2-Dibromoethane	< 2.00	ug/L		1/7/2020 16:18
1,2-Dichlorobenzene	< 2.00	ug/L		1/7/2020 16:18
1,2-Dichloroethane	< 2.00	ug/L		1/7/2020 16:18
1,2-Dichloropropane	< 2.00	ug/L		1/7/2020 16:18
1,3,5-Trimethylbenzene	< 2.00	ug/L		1/7/2020 16:18
1,3-Dichlorobenzene	< 2.00	ug/L		1/7/2020 16:18
1,4-Dichlorobenzene	< 2.00	ug/L		1/7/2020 16:18
1,4-Dioxane	< 20.0	ug/L		1/7/2020 16:18
2-Butanone	< 10.0	ug/L		1/7/2020 16:18
2-Hexanone	< 5.00	ug/L		1/7/2020 16:18
4-Methyl-2-pentanone	< 5.00	ug/L		1/7/2020 16:18
Acetone	< 10.0	ug/L		1/7/2020 16:18
Benzene	< 1.00	ug/L		1/7/2020 16:18
Bromochloromethane	< 5.00	ug/L		1/7/2020 16:18

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-10

Lab Sample ID: 200044-05

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

Bromodichloromethane	< 2.00	ug/L	1/7/2020 16:18
Bromoform	< 5.00	ug/L	1/7/2020 16:18
Bromomethane	< 2.00	ug/L	1/7/2020 16:18
Carbon disulfide	< 2.00	ug/L	1/7/2020 16:18
Carbon Tetrachloride	< 2.00	ug/L	1/7/2020 16:18
Chlorobenzene	< 2.00	ug/L	1/7/2020 16:18
Chloroethane	< 2.00	ug/L	1/7/2020 16:18
Chloroform	< 2.00	ug/L	1/7/2020 16:18
Chloromethane	< 2.00	ug/L	1/7/2020 16:18
cis-1,2-Dichloroethene	< 2.00	ug/L	1/7/2020 16:18
cis-1,3-Dichloropropene	< 2.00	ug/L	1/7/2020 16:18
Cyclohexane	< 10.0	ug/L	1/7/2020 16:18
Dibromochloromethane	< 2.00	ug/L	1/7/2020 16:18
Dichlorodifluoromethane	< 2.00	ug/L	1/7/2020 16:18
Ethylbenzene	< 2.00	ug/L	1/7/2020 16:18
Freon 113	< 2.00	ug/L	1/7/2020 16:18
Isopropylbenzene	< 2.00	ug/L	1/7/2020 16:18
m,p-Xylene	< 2.00	ug/L	1/7/2020 16:18
Methyl acetate	< 2.00	ug/L	1/7/2020 16:18
Methyl tert-butyl Ether	< 2.00	ug/L	1/7/2020 16:18
Methylcyclohexane	< 2.00	ug/L	1/7/2020 16:18
Methylene chloride	< 5.00	ug/L	1/7/2020 16:18
Naphthalene	< 5.00	ug/L	1/7/2020 16:18
n-Butylbenzene	< 2.00	ug/L	1/7/2020 16:18
n-Propylbenzene	< 2.00	ug/L	1/7/2020 16:18

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-10				
Lab Sample ID:	200044-05			Date Sampled:	1/3/2020
Matrix:	Groundwater			Date Received:	1/3/2020
o-Xylene	< 2.00	ug/L		1/7/2020	16:18
p-Isopropyltoluene	< 2.00	ug/L		1/7/2020	16:18
sec-Butylbenzene	< 2.00	ug/L		1/7/2020	16:18
Styrene	< 5.00	ug/L		1/7/2020	16:18
tert-Butylbenzene	< 2.00	ug/L		1/7/2020	16:18
Tetrachloroethene	< 2.00	ug/L		1/7/2020	16:18
Toluene	< 2.00	ug/L		1/7/2020	16:18
trans-1,2-Dichloroethene	< 2.00	ug/L		1/7/2020	16:18
trans-1,3-Dichloropropene	< 2.00	ug/L		1/7/2020	16:18
Trichloroethene	< 2.00	ug/L		1/7/2020	16:18
Trichlorofluoromethane	< 2.00	ug/L		1/7/2020	16:18
Vinyl chloride	< 2.00	ug/L		1/7/2020	16:18
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		<b>122</b>	74.3 - 138		1/7/2020 16:18
4-Bromofluorobenzene		<b>79.4</b>	66.3 - 125		1/7/2020 16:18
Pentafluorobenzene		<b>99.6</b>	87.4 - 111		1/7/2020 16:18
Toluene-D8		<b>87.9</b>	85.8 - 113		1/7/2020 16:18

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x67687.D

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

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Sample Identifier: MW-105

Lab Sample ID: 200044-06

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

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**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	< 0.000200	mg/L		1/8/2020 10:29

Method Reference(s): EPA 7470A

Preparation Date: 1/7/2020

Data File: Hg200108A

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-105

Lab Sample ID: 200044-06

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	9.27	mg/L		1/7/2020 18:43
Antimony	< 0.0600	mg/L		1/7/2020 18:43
Arsenic	< 0.0100	mg/L		1/7/2020 18:43
Barium	< 0.100	mg/L		1/7/2020 18:43
Beryllium	< 0.00500	mg/L		1/7/2020 18:43
Cadmium	< 0.00500	mg/L		1/7/2020 18:43
Calcium	178	mg/L		1/7/2020 18:43
Chromium	0.0108	mg/L		1/7/2020 18:43
Cobalt	< 0.0500	mg/L		1/7/2020 18:43
Copper	< 0.0200	mg/L		1/7/2020 18:43
Iron	13.0	mg/L		1/7/2020 18:43
Lead	0.0136	mg/L		1/7/2020 18:43
Magnesium	128	mg/L		1/7/2020 18:43
Manganese	0.236	mg/L		1/7/2020 18:43
Nickel	< 0.0400	mg/L		1/7/2020 18:43
Potassium	13.2	mg/L		1/7/2020 18:43
Selenium	< 0.0200	mg/L		1/14/2020 15:42
Silver	< 0.0100	mg/L		1/7/2020 18:43
Sodium	78.7	mg/L		1/7/2020 18:43
Thallium	< 0.0250	mg/L		1/7/2020 18:43
Vanadium	0.0137	mg/L	J	1/7/2020 18:43
Zinc	0.138	mg/L		1/7/2020 18:43

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Report Prepared Thursday, January 16, 2020



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 200044

**Client:** **Bergmann Associates**

**Project Reference:** VOA Back Lot

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**Sample Identifier:** MW-105

**Lab Sample ID:** 200044-06

**Date Sampled:** 1/3/2020

**Matrix:** Groundwater

**Date Received:** 1/3/2020

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 1/6/2020

**Data File:** 200107C

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*Report Prepared Thursday, January 16, 2020*



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-105

Lab Sample ID: 200044-06

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		1/8/2020 07:17
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		1/8/2020 07:17
1,2,4-Trichlorobenzene	< 10.0	ug/L		1/8/2020 07:17
1,2-Dichlorobenzene	< 10.0	ug/L		1/8/2020 07:17
1,3-Dichlorobenzene	< 10.0	ug/L		1/8/2020 07:17
1,4-Dichlorobenzene	< 10.0	ug/L		1/8/2020 07:17
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		1/8/2020 07:17
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		1/8/2020 07:17
2,4,5-Trichlorophenol	< 20.0	ug/L		1/8/2020 07:17
2,4,6-Trichlorophenol	< 10.0	ug/L		1/8/2020 07:17
2,4-Dichlorophenol	< 10.0	ug/L		1/8/2020 07:17
2,4-Dimethylphenol	< 20.0	ug/L		1/8/2020 07:17
2,4-Dinitrophenol	< 20.0	ug/L		1/8/2020 07:17
2,4-Dinitrotoluene	< 10.0	ug/L		1/8/2020 07:17
2,6-Dinitrotoluene	< 10.0	ug/L		1/8/2020 07:17
2-Chloronaphthalene	< 10.0	ug/L		1/8/2020 07:17
2-Chlorophenol	< 10.0	ug/L		1/8/2020 07:17
2-Methylnapthalene	< 10.0	ug/L		1/8/2020 07:17
2-Methylphenol	< 10.0	ug/L		1/8/2020 07:17
2-Nitroaniline	< 20.0	ug/L		1/8/2020 07:17
2-Nitrophenol	< 10.0	ug/L		1/8/2020 07:17
3&4-Methylphenol	< 10.0	ug/L		1/8/2020 07:17
3,3'-Dichlorobenzidine	< 10.0	ug/L		1/8/2020 07:17

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-105		
Lab Sample ID:	200044-06	Date Sampled:	1/3/2020
Matrix:	Groundwater	Date Received:	1/3/2020
3-Nitroaniline	< 20.0	ug/L	1/8/2020 07:17
4,6-Dinitro-2-methylphenol	< 20.0	ug/L	1/8/2020 07:17
4-Bromophenyl phenyl ether	< 10.0	ug/L	1/8/2020 07:17
4-Chloro-3-methylphenol	< 10.0	ug/L	1/8/2020 07:17
4-Chloroaniline	< 10.0	ug/L	1/8/2020 07:17
4-Chlorophenyl phenyl ether	< 10.0	ug/L	1/8/2020 07:17
4-Nitroaniline	< 20.0	ug/L	1/8/2020 07:17
4-Nitrophenol	< 20.0	ug/L	1/8/2020 07:17
Acenaphthene	< 10.0	ug/L	1/8/2020 07:17
Acenaphthylene	< 10.0	ug/L	1/8/2020 07:17
Acetophenone	< 10.0	ug/L	1/8/2020 07:17
Anthracene	< 10.0	ug/L	1/8/2020 07:17
Atrazine	< 10.0	ug/L	1/8/2020 07:17
Benzaldehyde	< 10.0	ug/L	1/8/2020 07:17
Benzo (a) anthracene	< 10.0	ug/L	1/8/2020 07:17
Benzo (a) pyrene	< 10.0	ug/L	1/8/2020 07:17
Benzo (b) fluoranthene	< 10.0	ug/L	1/8/2020 07:17
Benzo (g,h,i) perylene	< 10.0	ug/L	1/8/2020 07:17
Benzo (k) fluoranthene	< 10.0	ug/L	1/8/2020 07:17
Bis (2-chloroethoxy) methane	< 10.0	ug/L	1/8/2020 07:17
Bis (2-chloroethyl) ether	< 10.0	ug/L	1/8/2020 07:17
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	1/8/2020 07:17
Butylbenzylphthalate	< 10.0	ug/L	1/8/2020 07:17
Caprolactam	< 10.0	ug/L	1/8/2020 07:17
Carbazole	< 10.0	ug/L	1/8/2020 07:17

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-105		
Lab Sample ID:	200044-06	Date Sampled:	1/3/2020
Matrix:	Groundwater	Date Received:	1/3/2020
Chrysene	< 10.0	ug/L	1/8/2020 07:17
Dibenz (a,h) anthracene	< 10.0	ug/L	1/8/2020 07:17
Dibenzofuran	< 10.0	ug/L	1/8/2020 07:17
Diethyl phthalate	< 10.0	ug/L	1/8/2020 07:17
Dimethyl phthalate	< 20.0	ug/L	1/8/2020 07:17
Di-n-butyl phthalate	< 10.0	ug/L	1/8/2020 07:17
Di-n-octylphthalate	< 10.0	ug/L	1/8/2020 07:17
Fluoranthene	< 10.0	ug/L	1/8/2020 07:17
Fluorene	< 10.0	ug/L	1/8/2020 07:17
Hexachlorobenzene	< 10.0	ug/L	1/8/2020 07:17
Hexachlorobutadiene	< 10.0	ug/L	1/8/2020 07:17
Hexachlorocyclopentadiene	< 10.0	ug/L	1/8/2020 07:17
Hexachloroethane	< 10.0	ug/L	1/8/2020 07:17
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	1/8/2020 07:17
Isophorone	< 10.0	ug/L	1/8/2020 07:17
Naphthalene	< 10.0	ug/L	1/8/2020 07:17
Nitrobenzene	< 10.0	ug/L	1/8/2020 07:17
N-Nitroso-di-n-propylamine	< 10.0	ug/L	1/8/2020 07:17
N-Nitrosodiphenylamine	< 10.0	ug/L	1/8/2020 07:17
Pentachlorophenol	< 20.0	ug/L	1/8/2020 07:17
Phenanthrene	< 10.0	ug/L	1/8/2020 07:17
Phenol	< 10.0	ug/L	1/8/2020 07:17
Pyrene	< 10.0	ug/L	1/8/2020 07:17

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Report Prepared Thursday, January 16, 2020



**Lab Project ID:** 200044

**Client:** **Bergmann Associates**

**Project Reference:** VOA Back Lot

**Sample Identifier:** MW-105

**Lab Sample ID:** 200044-06

**Date Sampled:** 1/3/2020

**Matrix:** Groundwater

**Date Received:** 1/3/2020

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>81.0</b>	59.6 - 114		1/8/2020	07:17
2-Fluorobiphenyl	<b>62.9</b>	36.2 - 99.1		1/8/2020	07:17
2-Fluorophenol	<b>28.4</b>	14.9 - 105		1/8/2020	07:17
Nitrobenzene-d5	<b>68.3</b>	53.7 - 102		1/8/2020	07:17
Phenol-d5	<b>19.8</b>	10 - 106		1/8/2020	07:17
Terphenyl-d14	<b>71.5</b>	58.7 - 116		1/8/2020	07:17

**Method Reference(s):** EPA 8270D

EPA 3510C

**Preparation Date:** 1/6/2020

**Data File:** B43621.D

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*Report Prepared Thursday, January 16, 2020*



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-105

Lab Sample ID: 200044-06

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		1/7/2020 16:41
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		1/7/2020 16:41
1,1,2-Trichloroethane	< 2.00	ug/L		1/7/2020 16:41
1,1-Dichloroethane	< 2.00	ug/L		1/7/2020 16:41
1,1-Dichloroethene	< 2.00	ug/L		1/7/2020 16:41
1,2,3-Trichlorobenzene	< 5.00	ug/L		1/7/2020 16:41
1,2,4-Trichlorobenzene	< 5.00	ug/L		1/7/2020 16:41
1,2,4-Trimethylbenzene	< 2.00	ug/L		1/7/2020 16:41
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		1/7/2020 16:41
1,2-Dibromoethane	< 2.00	ug/L		1/7/2020 16:41
1,2-Dichlorobenzene	< 2.00	ug/L		1/7/2020 16:41
1,2-Dichloroethane	< 2.00	ug/L		1/7/2020 16:41
1,2-Dichloropropane	< 2.00	ug/L		1/7/2020 16:41
1,3,5-Trimethylbenzene	< 2.00	ug/L		1/7/2020 16:41
1,3-Dichlorobenzene	< 2.00	ug/L		1/7/2020 16:41
1,4-Dichlorobenzene	< 2.00	ug/L		1/7/2020 16:41
1,4-Dioxane	< 20.0	ug/L		1/7/2020 16:41
2-Butanone	< 10.0	ug/L		1/7/2020 16:41
2-Hexanone	< 5.00	ug/L		1/7/2020 16:41
4-Methyl-2-pentanone	< 5.00	ug/L		1/7/2020 16:41
Acetone	< 10.0	ug/L		1/7/2020 16:41
Benzene	< 1.00	ug/L		1/7/2020 16:41
Bromochloromethane	< 5.00	ug/L		1/7/2020 16:41

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-105		
Lab Sample ID:	200044-06	Date Sampled:	1/3/2020
Matrix:	Groundwater	Date Received:	1/3/2020
Bromodichloromethane	< 2.00	ug/L	1/7/2020 16:41
Bromoform	< 5.00	ug/L	1/7/2020 16:41
Bromomethane	< 2.00	ug/L	1/7/2020 16:41
Carbon disulfide	< 2.00	ug/L	1/7/2020 16:41
Carbon Tetrachloride	< 2.00	ug/L	1/7/2020 16:41
Chlorobenzene	< 2.00	ug/L	1/7/2020 16:41
Chloroethane	< 2.00	ug/L	1/7/2020 16:41
Chloroform	< 2.00	ug/L	1/7/2020 16:41
Chloromethane	< 2.00	ug/L	1/7/2020 16:41
cis-1,2-Dichloroethene	< 2.00	ug/L	1/7/2020 16:41
cis-1,3-Dichloropropene	< 2.00	ug/L	1/7/2020 16:41
Cyclohexane	< 10.0	ug/L	1/7/2020 16:41
Dibromochloromethane	< 2.00	ug/L	1/7/2020 16:41
Dichlorodifluoromethane	< 2.00	ug/L	1/7/2020 16:41
Ethylbenzene	< 2.00	ug/L	1/7/2020 16:41
Freon 113	< 2.00	ug/L	1/7/2020 16:41
Isopropylbenzene	< 2.00	ug/L	1/7/2020 16:41
m,p-Xylene	< 2.00	ug/L	1/7/2020 16:41
Methyl acetate	< 2.00	ug/L	1/7/2020 16:41
Methyl tert-butyl Ether	< 2.00	ug/L	1/7/2020 16:41
Methylcyclohexane	< 2.00	ug/L	1/7/2020 16:41
Methylene chloride	< 5.00	ug/L	1/7/2020 16:41
Naphthalene	< 5.00	ug/L	1/7/2020 16:41
n-Butylbenzene	< 2.00	ug/L	1/7/2020 16:41
n-Propylbenzene	< 2.00	ug/L	1/7/2020 16:41

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

<b>Sample Identifier:</b>		MW-105			
<b>Lab Sample ID:</b>		200044-06		<b>Date Sampled:</b>	1/3/2020
<b>Matrix:</b>		Groundwater		<b>Date Received:</b>	1/3/2020
<hr/>					
o-Xylene	< 2.00	ug/L		1/7/2020	16:41
p-Isopropyltoluene	< 2.00	ug/L		1/7/2020	16:41
sec-Butylbenzene	< 2.00	ug/L		1/7/2020	16:41
Styrene	< 5.00	ug/L		1/7/2020	16:41
tert-Butylbenzene	< 2.00	ug/L		1/7/2020	16:41
Tetrachloroethene	< 2.00	ug/L		1/7/2020	16:41
Toluene	< 2.00	ug/L		1/7/2020	16:41
trans-1,2-Dichloroethene	< 2.00	ug/L		1/7/2020	16:41
trans-1,3-Dichloropropene	< 2.00	ug/L		1/7/2020	16:41
Trichloroethene	< 2.00	ug/L		1/7/2020	16:41
Trichlorofluoromethane	< 2.00	ug/L		1/7/2020	16:41
Vinyl chloride	< 2.00	ug/L		1/7/2020	16:41
<b>Surrogate</b>		<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4		119	74.3 - 138		1/7/2020 16:41
4-Bromofluorobenzene		76.2	66.3 - 125		1/7/2020 16:41
Pentafluorobenzene		98.6	87.4 - 111		1/7/2020 16:41
Toluene-D8		88.2	85.8 - 113		1/7/2020 16:41
<b>Method Reference(s):</b>		EPA 8260C			
		EPA 5030C			
<b>Data File:</b>		x67688.D			

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

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Sample Identifier: MW-106

Lab Sample ID: 200044-07

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

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**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	0.000363	mg/L		1/8/2020 10:34

Method Reference(s): EPA 7470A

Preparation Date: 1/7/2020

Data File: Hg200108A

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-106

Lab Sample ID: 200044-07

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	<b>2.78</b>	mg/L		1/7/2020 18:48
Antimony	< 0.0600	mg/L		1/7/2020 18:48
Arsenic	< 0.0100	mg/L		1/7/2020 18:48
Barium	<b>0.187</b>	mg/L		1/7/2020 18:48
Beryllium	< 0.00500	mg/L		1/7/2020 18:48
Cadmium	< 0.00500	mg/L		1/7/2020 18:48
Calcium	<b>118</b>	mg/L		1/7/2020 18:48
Chromium	<b>0.00511</b>	mg/L	J	1/7/2020 18:48
Cobalt	< 0.0500	mg/L		1/7/2020 18:48
Copper	<b>0.0253</b>	mg/L		1/7/2020 18:48
Iron	<b>6.31</b>	mg/L		1/7/2020 18:48
Lead	<b>0.0554</b>	mg/L		1/7/2020 18:48
Magnesium	<b>31.9</b>	mg/L		1/7/2020 18:48
Manganese	<b>0.403</b>	mg/L		1/7/2020 18:48
Nickel	< 0.0400	mg/L		1/7/2020 18:48
Potassium	<b>9.63</b>	mg/L		1/7/2020 18:48
Selenium	< 0.0200	mg/L		1/7/2020 18:48
Silver	< 0.0100	mg/L		1/7/2020 18:48
Sodium	<b>120</b>	mg/L		1/7/2020 18:48
Thallium	< 0.0250	mg/L		1/7/2020 18:48
Vanadium	< 0.0250	mg/L		1/7/2020 18:48
Zinc	<b>0.133</b>	mg/L		1/7/2020 18:48

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Report Prepared Thursday, January 16, 2020



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 200044

**Client:** **Bergmann Associates**

**Project Reference:** VOA Back Lot

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**Sample Identifier:** MW-106

**Lab Sample ID:** 200044-07

**Date Sampled:** 1/3/2020

**Matrix:** Groundwater

**Date Received:** 1/3/2020

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 1/6/2020

**Data File:** 200107C

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*Report Prepared Thursday, January 16, 2020*



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-106

Lab Sample ID: 200044-07

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		1/8/2020 07:46
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		1/8/2020 07:46
1,2,4-Trichlorobenzene	< 10.0	ug/L		1/8/2020 07:46
1,2-Dichlorobenzene	< 10.0	ug/L		1/8/2020 07:46
1,3-Dichlorobenzene	< 10.0	ug/L		1/8/2020 07:46
1,4-Dichlorobenzene	< 10.0	ug/L		1/8/2020 07:46
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		1/8/2020 07:46
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		1/8/2020 07:46
2,4,5-Trichlorophenol	< 20.0	ug/L		1/8/2020 07:46
2,4,6-Trichlorophenol	< 10.0	ug/L		1/8/2020 07:46
2,4-Dichlorophenol	< 10.0	ug/L		1/8/2020 07:46
2,4-Dimethylphenol	< 20.0	ug/L		1/8/2020 07:46
2,4-Dinitrophenol	< 20.0	ug/L		1/8/2020 07:46
2,4-Dinitrotoluene	< 10.0	ug/L		1/8/2020 07:46
2,6-Dinitrotoluene	< 10.0	ug/L		1/8/2020 07:46
2-Chloronaphthalene	< 10.0	ug/L		1/8/2020 07:46
2-Chlorophenol	< 10.0	ug/L		1/8/2020 07:46
2-Methylnapthalene	< 10.0	ug/L		1/8/2020 07:46
2-Methylphenol	< 10.0	ug/L		1/8/2020 07:46
2-Nitroaniline	< 20.0	ug/L		1/8/2020 07:46
2-Nitrophenol	< 10.0	ug/L		1/8/2020 07:46
3&4-Methylphenol	< 10.0	ug/L		1/8/2020 07:46
3,3'-Dichlorobenzidine	< 10.0	ug/L		1/8/2020 07:46

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-106		
Lab Sample ID:	200044-07	Date Sampled:	1/3/2020
Matrix:	Groundwater	Date Received:	1/3/2020
3-Nitroaniline	< 20.0	ug/L	1/8/2020 07:46
4,6-Dinitro-2-methylphenol	< 20.0	ug/L	1/8/2020 07:46
4-Bromophenyl phenyl ether	< 10.0	ug/L	1/8/2020 07:46
4-Chloro-3-methylphenol	< 10.0	ug/L	1/8/2020 07:46
4-Chloroaniline	< 10.0	ug/L	1/8/2020 07:46
4-Chlorophenyl phenyl ether	< 10.0	ug/L	1/8/2020 07:46
4-Nitroaniline	< 20.0	ug/L	1/8/2020 07:46
4-Nitrophenol	< 20.0	ug/L	1/8/2020 07:46
Acenaphthene	< 10.0	ug/L	1/8/2020 07:46
Acenaphthylene	< 10.0	ug/L	1/8/2020 07:46
Acetophenone	< 10.0	ug/L	1/8/2020 07:46
Anthracene	< 10.0	ug/L	1/8/2020 07:46
Atrazine	< 10.0	ug/L	1/8/2020 07:46
Benzaldehyde	< 10.0	ug/L	1/8/2020 07:46
Benzo (a) anthracene	< 10.0	ug/L	1/8/2020 07:46
Benzo (a) pyrene	< 10.0	ug/L	1/8/2020 07:46
Benzo (b) fluoranthene	< 10.0	ug/L	1/8/2020 07:46
Benzo (g,h,i) perylene	< 10.0	ug/L	1/8/2020 07:46
Benzo (k) fluoranthene	< 10.0	ug/L	1/8/2020 07:46
Bis (2-chloroethoxy) methane	< 10.0	ug/L	1/8/2020 07:46
Bis (2-chloroethyl) ether	< 10.0	ug/L	1/8/2020 07:46
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	1/8/2020 07:46
Butylbenzylphthalate	< 10.0	ug/L	1/8/2020 07:46
Caprolactam	< 10.0	ug/L	1/8/2020 07:46
Carbazole	< 10.0	ug/L	1/8/2020 07:46

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-106		
Lab Sample ID:	200044-07	Date Sampled:	1/3/2020
Matrix:	Groundwater	Date Received:	1/3/2020
Chrysene	< 10.0	ug/L	1/8/2020 07:46
Dibenz (a,h) anthracene	< 10.0	ug/L	1/8/2020 07:46
Dibenzofuran	< 10.0	ug/L	1/8/2020 07:46
Diethyl phthalate	< 10.0	ug/L	1/8/2020 07:46
Dimethyl phthalate	< 20.0	ug/L	1/8/2020 07:46
Di-n-butyl phthalate	< 10.0	ug/L	1/8/2020 07:46
Di-n-octylphthalate	< 10.0	ug/L	1/8/2020 07:46
Fluoranthene	< 10.0	ug/L	1/8/2020 07:46
Fluorene	< 10.0	ug/L	1/8/2020 07:46
Hexachlorobenzene	< 10.0	ug/L	1/8/2020 07:46
Hexachlorobutadiene	< 10.0	ug/L	1/8/2020 07:46
Hexachlorocyclopentadiene	< 10.0	ug/L	1/8/2020 07:46
Hexachloroethane	< 10.0	ug/L	1/8/2020 07:46
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	1/8/2020 07:46
Isophorone	< 10.0	ug/L	1/8/2020 07:46
Naphthalene	< 10.0	ug/L	1/8/2020 07:46
Nitrobenzene	< 10.0	ug/L	1/8/2020 07:46
N-Nitroso-di-n-propylamine	< 10.0	ug/L	1/8/2020 07:46
N-Nitrosodiphenylamine	< 10.0	ug/L	1/8/2020 07:46
Pentachlorophenol	< 20.0	ug/L	1/8/2020 07:46
Phenanthrene	< 10.0	ug/L	1/8/2020 07:46
Phenol	< 10.0	ug/L	1/8/2020 07:46
Pyrene	< 10.0	ug/L	1/8/2020 07:46

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Report Prepared Thursday, January 16, 2020



**Lab Project ID:** 200044

**Client:** **Bergmann Associates**

**Project Reference:** VOA Back Lot

**Sample Identifier:** MW-106

**Lab Sample ID:** 200044-07

**Date Sampled:** 1/3/2020

**Matrix:** Groundwater

**Date Received:** 1/3/2020

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>80.9</b>	59.6 - 114		1/8/2020	07:46
2-Fluorobiphenyl	<b>58.3</b>	36.2 - 99.1		1/8/2020	07:46
2-Fluorophenol	<b>34.2</b>	14.9 - 105		1/8/2020	07:46
Nitrobenzene-d5	<b>66.5</b>	53.7 - 102		1/8/2020	07:46
Phenol-d5	<b>22.5</b>	10 - 106		1/8/2020	07:46
Terphenyl-d14	<b>75.0</b>	58.7 - 116		1/8/2020	07:46

**Method Reference(s):** EPA 8270D

EPA 3510C

**Preparation Date:** 1/6/2020

**Data File:** B43622.D

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*Report Prepared Thursday, January 16, 2020*



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-106

Lab Sample ID: 200044-07

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 2.00	ug/L		1/7/2020 17:03
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		1/7/2020 17:03
1,1,2-Trichloroethane	< 2.00	ug/L		1/7/2020 17:03
1,1-Dichloroethane	< 2.00	ug/L		1/7/2020 17:03
1,1-Dichloroethene	< 2.00	ug/L		1/7/2020 17:03
1,2,3-Trichlorobenzene	< 5.00	ug/L		1/7/2020 17:03
1,2,4-Trichlorobenzene	< 5.00	ug/L		1/7/2020 17:03
1,2,4-Trimethylbenzene	< 2.00	ug/L		1/7/2020 17:03
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		1/7/2020 17:03
1,2-Dibromoethane	< 2.00	ug/L		1/7/2020 17:03
1,2-Dichlorobenzene	< 2.00	ug/L		1/7/2020 17:03
1,2-Dichloroethane	< 2.00	ug/L		1/7/2020 17:03
1,2-Dichloropropane	< 2.00	ug/L		1/7/2020 17:03
1,3,5-Trimethylbenzene	< 2.00	ug/L		1/7/2020 17:03
1,3-Dichlorobenzene	< 2.00	ug/L		1/7/2020 17:03
1,4-Dichlorobenzene	< 2.00	ug/L		1/7/2020 17:03
1,4-Dioxane	< 20.0	ug/L		1/7/2020 17:03
2-Butanone	< 10.0	ug/L		1/7/2020 17:03
2-Hexanone	< 5.00	ug/L		1/7/2020 17:03
4-Methyl-2-pentanone	< 5.00	ug/L		1/7/2020 17:03
Acetone	< 10.0	ug/L		1/7/2020 17:03
Benzene	< 1.00	ug/L		1/7/2020 17:03
Bromochloromethane	< 5.00	ug/L		1/7/2020 17:03

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-106

Lab Sample ID: 200044-07

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

Bromodichloromethane	< 2.00	ug/L	1/7/2020 17:03
Bromoform	< 5.00	ug/L	1/7/2020 17:03
Bromomethane	< 2.00	ug/L	1/7/2020 17:03
Carbon disulfide	< 2.00	ug/L	1/7/2020 17:03
Carbon Tetrachloride	< 2.00	ug/L	1/7/2020 17:03
Chlorobenzene	<b>5.48</b>	ug/L	1/7/2020 17:03
Chloroethane	< 2.00	ug/L	1/7/2020 17:03
Chloroform	< 2.00	ug/L	1/7/2020 17:03
Chloromethane	< 2.00	ug/L	1/7/2020 17:03
cis-1,2-Dichloroethene	< 2.00	ug/L	1/7/2020 17:03
cis-1,3-Dichloropropene	< 2.00	ug/L	1/7/2020 17:03
Cyclohexane	< 10.0	ug/L	1/7/2020 17:03
Dibromochloromethane	< 2.00	ug/L	1/7/2020 17:03
Dichlorodifluoromethane	< 2.00	ug/L	1/7/2020 17:03
Ethylbenzene	< 2.00	ug/L	1/7/2020 17:03
Freon 113	< 2.00	ug/L	1/7/2020 17:03
Isopropylbenzene	< 2.00	ug/L	1/7/2020 17:03
m,p-Xylene	< 2.00	ug/L	1/7/2020 17:03
Methyl acetate	< 2.00	ug/L	1/7/2020 17:03
Methyl tert-butyl Ether	< 2.00	ug/L	1/7/2020 17:03
Methylcyclohexane	< 2.00	ug/L	1/7/2020 17:03
Methylene chloride	< 5.00	ug/L	1/7/2020 17:03
Naphthalene	< 5.00	ug/L	1/7/2020 17:03
n-Butylbenzene	< 2.00	ug/L	1/7/2020 17:03
n-Propylbenzene	< 2.00	ug/L	1/7/2020 17:03

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-106

Lab Sample ID: 200044-07

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

o-Xylene	< 2.00	ug/L	1/7/2020	17:03
p-Isopropyltoluene	< 2.00	ug/L	1/7/2020	17:03
sec-Butylbenzene	< 2.00	ug/L	1/7/2020	17:03
Styrene	< 5.00	ug/L	1/7/2020	17:03
tert-Butylbenzene	< 2.00	ug/L	1/7/2020	17:03
Tetrachloroethene	< 2.00	ug/L	1/7/2020	17:03
Toluene	< 2.00	ug/L	1/7/2020	17:03
trans-1,2-Dichloroethene	< 2.00	ug/L	1/7/2020	17:03
trans-1,3-Dichloropropene	< 2.00	ug/L	1/7/2020	17:03
Trichloroethene	< 2.00	ug/L	1/7/2020	17:03
Trichlorofluoromethane	< 2.00	ug/L	1/7/2020	17:03
Vinyl chloride	< 2.00	ug/L	1/7/2020	17:03

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	123	74.3 - 138		1/7/2020 17:03
4-Bromofluorobenzene	79.6	66.3 - 125		1/7/2020 17:03
Pentafluorobenzene	97.0	87.4 - 111		1/7/2020 17:03
Toluene-D8	89.9	85.8 - 113		1/7/2020 17:03

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x67689.D

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

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Sample Identifier: MW-102

Lab Sample ID: 200044-08

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

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**Mercury**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>	<b><u>Qualifier</u></b>	<b><u>Date Analyzed</u></b>
Mercury	< 0.000200	mg/L		1/8/2020 10:36

Method Reference(s): EPA 7470A

Preparation Date: 1/7/2020

Data File: Hg200108A

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-102

Lab Sample ID: 200044-08

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**TAL Metals (ICP)**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Aluminum	< 0.100	mg/L		1/7/2020 18:52
Antimony	< 0.0600	mg/L		1/7/2020 18:52
Arsenic	< 0.0100	mg/L		1/7/2020 18:52
Barium	<b>0.696</b>	mg/L		1/7/2020 18:52
Beryllium	< 0.00500	mg/L		1/7/2020 18:52
Cadmium	< 0.00500	mg/L		1/7/2020 18:52
Calcium	<b>543</b>	mg/L		1/14/2020 15:55
Chromium	< 0.0100	mg/L		1/7/2020 18:52
Cobalt	< 0.0500	mg/L		1/7/2020 18:52
Copper	< 0.0200	mg/L		1/7/2020 18:52
Iron	<b>26.1</b>	mg/L		1/7/2020 18:52
Lead	< 0.0100	mg/L		1/7/2020 18:52
Magnesium	<b>134</b>	mg/L		1/7/2020 18:52
Manganese	<b>1.25</b>	mg/L		1/7/2020 18:52
Nickel	< 0.0400	mg/L		1/7/2020 18:52
Potassium	<b>42.8</b>	mg/L		1/7/2020 18:52
Selenium	< 0.0200	mg/L		1/7/2020 18:52
Silver	< 0.0100	mg/L		1/7/2020 18:52
Sodium	<b>1860</b>	mg/L		1/14/2020 15:55
Thallium	<b>0.0545</b>	mg/L		1/7/2020 18:52
Vanadium	< 0.0250	mg/L		1/7/2020 18:52
Zinc	<b>0.0375</b>	mg/L	J	1/7/2020 18:52

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Report Prepared Thursday, January 16, 2020



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 200044

**Client:** **Bergmann Associates**

**Project Reference:** VOA Back Lot

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**Sample Identifier:** MW-102

**Lab Sample ID:** 200044-08

**Date Sampled:** 1/3/2020

**Matrix:** Groundwater

**Date Received:** 1/3/2020

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 1/6/2020

**Data File:** 200107C

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*Report Prepared Thursday, January 16, 2020*



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-102

Lab Sample ID: 200044-08

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.0	ug/L		1/8/2020 08:14
1,2,4,5-Tetrachlorobenzene	< 10.0	ug/L		1/8/2020 08:14
1,2,4-Trichlorobenzene	< 10.0	ug/L		1/8/2020 08:14
1,2-Dichlorobenzene	< 10.0	ug/L		1/8/2020 08:14
1,3-Dichlorobenzene	< 10.0	ug/L		1/8/2020 08:14
1,4-Dichlorobenzene	< 10.0	ug/L		1/8/2020 08:14
2,2-Oxybis (1-chloropropane)	< 10.0	ug/L		1/8/2020 08:14
2,3,4,6-Tetrachlorophenol	< 10.0	ug/L		1/8/2020 08:14
2,4,5-Trichlorophenol	< 20.0	ug/L		1/8/2020 08:14
2,4,6-Trichlorophenol	< 10.0	ug/L		1/8/2020 08:14
2,4-Dichlorophenol	< 10.0	ug/L		1/8/2020 08:14
2,4-Dimethylphenol	< 20.0	ug/L		1/8/2020 08:14
2,4-Dinitrophenol	< 20.0	ug/L		1/8/2020 08:14
2,4-Dinitrotoluene	< 10.0	ug/L		1/8/2020 08:14
2,6-Dinitrotoluene	< 10.0	ug/L		1/8/2020 08:14
2-Chloronaphthalene	< 10.0	ug/L		1/8/2020 08:14
2-Chlorophenol	< 10.0	ug/L		1/8/2020 08:14
2-Methylnaphthalene	< 10.0	ug/L		1/8/2020 08:14
2-Methylphenol	< 10.0	ug/L		1/8/2020 08:14
2-Nitroaniline	< 20.0	ug/L		1/8/2020 08:14
2-Nitrophenol	< 10.0	ug/L		1/8/2020 08:14
3&4-Methylphenol	< 10.0	ug/L		1/8/2020 08:14
3,3'-Dichlorobenzidine	< 10.0	ug/L		1/8/2020 08:14

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-102		
Lab Sample ID:	200044-08	Date Sampled:	1/3/2020
Matrix:	Groundwater	Date Received:	1/3/2020
3-Nitroaniline	< 20.0	ug/L	1/8/2020 08:14
4,6-Dinitro-2-methylphenol	< 20.0	ug/L	1/8/2020 08:14
4-Bromophenyl phenyl ether	< 10.0	ug/L	1/8/2020 08:14
4-Chloro-3-methylphenol	< 10.0	ug/L	1/8/2020 08:14
4-Chloroaniline	< 10.0	ug/L	1/8/2020 08:14
4-Chlorophenyl phenyl ether	< 10.0	ug/L	1/8/2020 08:14
4-Nitroaniline	< 20.0	ug/L	1/8/2020 08:14
4-Nitrophenol	< 20.0	ug/L	1/8/2020 08:14
Acenaphthene	< 10.0	ug/L	1/8/2020 08:14
Acenaphthylene	< 10.0	ug/L	1/8/2020 08:14
Acetophenone	< 10.0	ug/L	1/8/2020 08:14
Anthracene	< 10.0	ug/L	1/8/2020 08:14
Atrazine	< 10.0	ug/L	1/8/2020 08:14
Benzaldehyde	< 10.0	ug/L	1/8/2020 08:14
Benzo (a) anthracene	< 10.0	ug/L	1/8/2020 08:14
Benzo (a) pyrene	< 10.0	ug/L	1/8/2020 08:14
Benzo (b) fluoranthene	< 10.0	ug/L	1/8/2020 08:14
Benzo (g,h,i) perylene	< 10.0	ug/L	1/8/2020 08:14
Benzo (k) fluoranthene	< 10.0	ug/L	1/8/2020 08:14
Bis (2-chloroethoxy) methane	< 10.0	ug/L	1/8/2020 08:14
Bis (2-chloroethyl) ether	< 10.0	ug/L	1/8/2020 08:14
Bis (2-ethylhexyl) phthalate	< 10.0	ug/L	1/8/2020 08:14
Butylbenzylphthalate	< 10.0	ug/L	1/8/2020 08:14
Caprolactam	< 10.0	ug/L	1/8/2020 08:14
Carbazole	< 10.0	ug/L	1/8/2020 08:14

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-102		
Lab Sample ID:	200044-08	Date Sampled:	1/3/2020
Matrix:	Groundwater	Date Received:	1/3/2020
Chrysene	< 10.0	ug/L	1/8/2020 08:14
Dibenz (a,h) anthracene	< 10.0	ug/L	1/8/2020 08:14
Dibenzofuran	< 10.0	ug/L	1/8/2020 08:14
Diethyl phthalate	< 10.0	ug/L	1/8/2020 08:14
Dimethyl phthalate	< 20.0	ug/L	1/8/2020 08:14
Di-n-butyl phthalate	< 10.0	ug/L	1/8/2020 08:14
Di-n-octylphthalate	< 10.0	ug/L	1/8/2020 08:14
Fluoranthene	< 10.0	ug/L	1/8/2020 08:14
Fluorene	< 10.0	ug/L	1/8/2020 08:14
Hexachlorobenzene	< 10.0	ug/L	1/8/2020 08:14
Hexachlorobutadiene	< 10.0	ug/L	1/8/2020 08:14
Hexachlorocyclopentadiene	< 10.0	ug/L	1/8/2020 08:14
Hexachloroethane	< 10.0	ug/L	1/8/2020 08:14
Indeno (1,2,3-cd) pyrene	< 10.0	ug/L	1/8/2020 08:14
Isophorone	< 10.0	ug/L	1/8/2020 08:14
Naphthalene	< 10.0	ug/L	1/8/2020 08:14
Nitrobenzene	< 10.0	ug/L	1/8/2020 08:14
N-Nitroso-di-n-propylamine	< 10.0	ug/L	1/8/2020 08:14
N-Nitrosodiphenylamine	< 10.0	ug/L	1/8/2020 08:14
Pentachlorophenol	< 20.0	ug/L	1/8/2020 08:14
Phenanthrene	< 10.0	ug/L	1/8/2020 08:14
Phenol	< 10.0	ug/L	1/8/2020 08:14
Pyrene	< 10.0	ug/L	1/8/2020 08:14

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Report Prepared Thursday, January 16, 2020



**Lab Project ID:** 200044

**Client:** **Bergmann Associates**

**Project Reference:** VOA Back Lot

**Sample Identifier:** MW-102

**Lab Sample ID:** 200044-08

**Date Sampled:** 1/3/2020

**Matrix:** Groundwater

**Date Received:** 1/3/2020

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
2,4,6-Tribromophenol	<b>90.8</b>	59.6 - 114		1/8/2020	08:14
2-Fluorobiphenyl	<b>62.5</b>	36.2 - 99.1		1/8/2020	08:14
2-Fluorophenol	<b>32.7</b>	14.9 - 105		1/8/2020	08:14
Nitrobenzene-d5	<b>71.7</b>	53.7 - 102		1/8/2020	08:14
Phenol-d5	<b>21.6</b>	10 - 106		1/8/2020	08:14
Terphenyl-d14	<b>78.3</b>	58.7 - 116		1/8/2020	08:14

**Method Reference(s):** EPA 8270D

EPA 3510C

**Preparation Date:** 1/6/2020

**Data File:** B43623.D

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*Report Prepared Thursday, January 16, 2020*



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MW-102

Lab Sample ID: 200044-08

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		1/7/2020 17:26
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		1/7/2020 17:26
1,1,2-Trichloroethane	< 2.00	ug/L		1/7/2020 17:26
1,1-Dichloroethane	< 2.00	ug/L		1/7/2020 17:26
1,1-Dichloroethene	< 2.00	ug/L		1/7/2020 17:26
1,2,3-Trichlorobenzene	< 5.00	ug/L		1/7/2020 17:26
1,2,4-Trichlorobenzene	< 5.00	ug/L		1/7/2020 17:26
1,2,4-Trimethylbenzene	< 2.00	ug/L		1/7/2020 17:26
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		1/7/2020 17:26
1,2-Dibromoethane	< 2.00	ug/L		1/7/2020 17:26
1,2-Dichlorobenzene	< 2.00	ug/L		1/7/2020 17:26
1,2-Dichloroethane	< 2.00	ug/L		1/7/2020 17:26
1,2-Dichloropropane	< 2.00	ug/L		1/7/2020 17:26
1,3,5-Trimethylbenzene	< 2.00	ug/L		1/7/2020 17:26
1,3-Dichlorobenzene	< 2.00	ug/L		1/7/2020 17:26
1,4-Dichlorobenzene	< 2.00	ug/L		1/7/2020 17:26
1,4-Dioxane	< 20.0	ug/L		1/7/2020 17:26
2-Butanone	< 10.0	ug/L		1/7/2020 17:26
2-Hexanone	< 5.00	ug/L		1/7/2020 17:26
4-Methyl-2-pentanone	< 5.00	ug/L		1/7/2020 17:26
Acetone	< 10.0	ug/L		1/7/2020 17:26
Benzene	< 1.00	ug/L		1/7/2020 17:26
Bromochloromethane	< 5.00	ug/L		1/7/2020 17:26

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MW-102			
Lab Sample ID:	200044-08		Date Sampled:	1/3/2020
Matrix:	Groundwater		Date Received:	1/3/2020
Bromodichloromethane	< 2.00	ug/L	1/7/2020	17:26
Bromoform	< 5.00	ug/L	1/7/2020	17:26
Bromomethane	< 2.00	ug/L	1/7/2020	17:26
Carbon disulfide	< 2.00	ug/L	1/7/2020	17:26
Carbon Tetrachloride	< 2.00	ug/L	1/7/2020	17:26
Chlorobenzene	< 2.00	ug/L	1/7/2020	17:26
Chloroethane	< 2.00	ug/L	1/7/2020	17:26
Chloroform	< 2.00	ug/L	1/7/2020	17:26
Chloromethane	< 2.00	ug/L	1/7/2020	17:26
cis-1,2-Dichloroethene	< 2.00	ug/L	1/7/2020	17:26
cis-1,3-Dichloropropene	< 2.00	ug/L	1/7/2020	17:26
Cyclohexane	< 10.0	ug/L	1/7/2020	17:26
Dibromochloromethane	< 2.00	ug/L	1/7/2020	17:26
Dichlorodifluoromethane	< 2.00	ug/L	1/7/2020	17:26
Ethylbenzene	< 2.00	ug/L	1/7/2020	17:26
Freon 113	< 2.00	ug/L	1/7/2020	17:26
Isopropylbenzene	< 2.00	ug/L	1/7/2020	17:26
m,p-Xylene	< 2.00	ug/L	1/7/2020	17:26
Methyl acetate	< 2.00	ug/L	1/7/2020	17:26
Methyl tert-butyl Ether	< 2.00	ug/L	1/7/2020	17:26
Methylcyclohexane	< 2.00	ug/L	1/7/2020	17:26
Methylene chloride	< 5.00	ug/L	1/7/2020	17:26
Naphthalene	< 5.00	ug/L	1/7/2020	17:26
n-Butylbenzene	< 2.00	ug/L	1/7/2020	17:26
n-Propylbenzene	< 2.00	ug/L	1/7/2020	17:26

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

<b>Sample Identifier:</b>		MW-102			
<b>Lab Sample ID:</b>		200044-08		<b>Date Sampled:</b>	1/3/2020
<b>Matrix:</b>		Groundwater		<b>Date Received:</b>	1/3/2020
<hr/>					
o-Xylene	< 2.00	ug/L		1/7/2020	17:26
p-Isopropyltoluene	< 2.00	ug/L		1/7/2020	17:26
sec-Butylbenzene	< 2.00	ug/L		1/7/2020	17:26
Styrene	< 5.00	ug/L		1/7/2020	17:26
tert-Butylbenzene	< 2.00	ug/L		1/7/2020	17:26
Tetrachloroethene	< 2.00	ug/L		1/7/2020	17:26
Toluene	< 2.00	ug/L		1/7/2020	17:26
trans-1,2-Dichloroethene	< 2.00	ug/L		1/7/2020	17:26
trans-1,3-Dichloropropene	< 2.00	ug/L		1/7/2020	17:26
Trichloroethene	< 2.00	ug/L		1/7/2020	17:26
Trichlorofluoromethane	< 2.00	ug/L		1/7/2020	17:26
Vinyl chloride	< 2.00	ug/L		1/7/2020	17:26
<hr/>					
<b>Surrogate</b>	<b>Percent Recovery</b>		<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>124</b>		74.3 - 138		1/7/2020 17:26
4-Bromofluorobenzene	<b>91.0</b>		66.3 - 125		1/7/2020 17:26
Pentafluorobenzene	<b>96.1</b>		87.4 - 111		1/7/2020 17:26
Toluene-D8	<b>98.8</b>		85.8 - 113		1/7/2020 17:26

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x67690.D

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Report Prepared Thursday, January 16, 2020



**Lab Project ID:** 200044

**Client:** **Bergmann Associates**

**Project Reference:** VOA Back Lot

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**Sample Identifier:** MWR-102

**Lab Sample ID:** 200044-09

**Date Sampled:** 1/3/2020

**Matrix:** Groundwater

**Date Received:** 1/3/2020

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**Mercury**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Mercury	< 0.000200	mg/L		1/8/2020 10:38

**Method Reference(s):** EPA 7470A

**Preparation Date:** 1/7/2020

**Data File:** Hg200108A

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*Report Prepared Thursday, January 16, 2020*



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MWR-102

Lab Sample ID: 200044-09

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**TAL Metals (ICP)**

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	< 0.100	mg/L		1/7/2020 18:57
Antimony	< 0.0600	mg/L		1/7/2020 18:57
Arsenic	< 0.0100	mg/L		1/7/2020 18:57
Barium	<b>0.0697</b>	mg/L	J	1/7/2020 18:57
Beryllium	< 0.00500	mg/L		1/7/2020 18:57
Cadmium	< 0.00500	mg/L		1/7/2020 18:57
Calcium	<b>106</b>	mg/L		1/7/2020 18:57
Chromium	< 0.0100	mg/L		1/7/2020 18:57
Cobalt	< 0.0500	mg/L		1/7/2020 18:57
Copper	< 0.0200	mg/L		1/7/2020 18:57
Iron	< 0.100	mg/L		1/7/2020 18:57
Lead	< 0.0100	mg/L		1/7/2020 18:57
Magnesium	<b>66.1</b>	mg/L		1/7/2020 18:57
Manganese	<b>0.161</b>	mg/L		1/7/2020 18:57
Nickel	< 0.0400	mg/L		1/7/2020 18:57
Potassium	<b>9.71</b>	mg/L		1/7/2020 18:57
Selenium	< 0.0200	mg/L		1/7/2020 18:57
Silver	< 0.0100	mg/L		1/7/2020 18:57
Sodium	<b>290</b>	mg/L	E	1/7/2020 18:57
Thallium	< 0.0250	mg/L		1/7/2020 18:57
Vanadium	< 0.0250	mg/L		1/7/2020 18:57
Zinc	< 0.0600	mg/L		1/7/2020 18:57

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Report Prepared Thursday, January 16, 2020



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

**Lab Project ID:** 200044

**Client:** **Bergmann Associates**

**Project Reference:** VOA Back Lot

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**Sample Identifier:** MWR-102

**Lab Sample ID:** 200044-09

**Date Sampled:** 1/3/2020

**Matrix:** Groundwater

**Date Received:** 1/3/2020

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**Method Reference(s):** EPA 6010C

EPA 3005A

**Preparation Date:** 1/6/2020

**Data File:** 200107C

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*Report Prepared Thursday, January 16, 2020*



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MWR-102

Lab Sample ID: 200044-09

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**Semi-Volatile Organics (Acid/Base Neutrals)**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 10.1	ug/L		1/8/2020 02:57
1,2,4,5-Tetrachlorobenzene	< 10.1	ug/L		1/8/2020 02:57
1,2,4-Trichlorobenzene	< 10.1	ug/L		1/8/2020 02:57
1,2-Dichlorobenzene	< 10.1	ug/L		1/8/2020 02:57
1,3-Dichlorobenzene	< 10.1	ug/L		1/8/2020 02:57
1,4-Dichlorobenzene	< 10.1	ug/L		1/8/2020 02:57
2,2-Oxybis (1-chloropropane)	< 10.1	ug/L		1/8/2020 02:57
2,3,4,6-Tetrachlorophenol	< 10.1	ug/L		1/8/2020 02:57
2,4,5-Trichlorophenol	< 20.1	ug/L		1/8/2020 02:57
2,4,6-Trichlorophenol	< 10.1	ug/L		1/8/2020 02:57
2,4-Dichlorophenol	< 10.1	ug/L	M	1/8/2020 02:57
2,4-Dimethylphenol	< 20.1	ug/L	DM	1/8/2020 02:57
2,4-Dinitrophenol	< 20.1	ug/L		1/8/2020 02:57
2,4-Dinitrotoluene	< 10.1	ug/L		1/8/2020 02:57
2,6-Dinitrotoluene	< 10.1	ug/L		1/8/2020 02:57
2-Chloronaphthalene	< 10.1	ug/L		1/8/2020 02:57
2-Chlorophenol	< 10.1	ug/L	M	1/8/2020 02:57
2-Methylnaphthalene	< 10.1	ug/L		1/8/2020 02:57
2-Methylphenol	< 10.1	ug/L		1/8/2020 02:57
2-Nitroaniline	< 20.1	ug/L		1/8/2020 02:57
2-Nitrophenol	< 10.1	ug/L		1/8/2020 02:57
3&4-Methylphenol	< 10.1	ug/L		1/8/2020 02:57
3,3'-Dichlorobenzidine	< 10.1	ug/L		1/8/2020 02:57

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MWR-102			
Lab Sample ID:	200044-09		Date Sampled:	1/3/2020
Matrix:	Groundwater		Date Received:	1/3/2020
3-Nitroaniline	< 20.1	ug/L		1/8/2020 02:57
4,6-Dinitro-2-methylphenol	< 20.1	ug/L		1/8/2020 02:57
4-Bromophenyl phenyl ether	< 10.1	ug/L		1/8/2020 02:57
4-Chloro-3-methylphenol	< 10.1	ug/L	M	1/8/2020 02:57
4-Chloroaniline	< 10.1	ug/L		1/8/2020 02:57
4-Chlorophenyl phenyl ether	< 10.1	ug/L		1/8/2020 02:57
4-Nitroaniline	< 20.1	ug/L		1/8/2020 02:57
4-Nitrophenol	< 20.1	ug/L		1/8/2020 02:57
Acenaphthene	< 10.1	ug/L		1/8/2020 02:57
Acenaphthylene	< 10.1	ug/L		1/8/2020 02:57
Acetophenone	< 10.1	ug/L		1/8/2020 02:57
Anthracene	< 10.1	ug/L		1/8/2020 02:57
Atrazine	< 10.1	ug/L		1/8/2020 02:57
Benzaldehyde	< 10.1	ug/L		1/8/2020 02:57
Benzo (a) anthracene	< 10.1	ug/L		1/8/2020 02:57
Benzo (a) pyrene	< 10.1	ug/L		1/8/2020 02:57
Benzo (b) fluoranthene	< 10.1	ug/L		1/8/2020 02:57
Benzo (g,h,i) perylene	< 10.1	ug/L		1/8/2020 02:57
Benzo (k) fluoranthene	< 10.1	ug/L		1/8/2020 02:57
Bis (2-chloroethoxy) methane	< 10.1	ug/L		1/8/2020 02:57
Bis (2-chloroethyl) ether	< 10.1	ug/L		1/8/2020 02:57
Bis (2-ethylhexyl) phthalate	< 10.1	ug/L		1/8/2020 02:57
Butylbenzylphthalate	< 10.1	ug/L		1/8/2020 02:57
Caprolactam	< 10.1	ug/L		1/8/2020 02:57
Carbazole	< 10.1	ug/L		1/8/2020 02:57

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MWR-102		
Lab Sample ID:	200044-09	Date Sampled:	1/3/2020
Matrix:	Groundwater	Date Received:	1/3/2020
Chrysene	< 10.1	ug/L	1/8/2020 02:57
Dibenz (a,h) anthracene	< 10.1	ug/L	1/8/2020 02:57
Dibenzofuran	< 10.1	ug/L	1/8/2020 02:57
Diethyl phthalate	< 10.1	ug/L	1/8/2020 02:57
Dimethyl phthalate	< 20.1	ug/L	1/8/2020 02:57
Di-n-butyl phthalate	< 10.1	ug/L	1/8/2020 02:57
Di-n-octylphthalate	< 10.1	ug/L	1/8/2020 02:57
Fluoranthene	< 10.1	ug/L	1/8/2020 02:57
Fluorene	< 10.1	ug/L	1/8/2020 02:57
Hexachlorobenzene	< 10.1	ug/L	1/8/2020 02:57
Hexachlorobutadiene	< 10.1	ug/L	1/8/2020 02:57
Hexachlorocyclopentadiene	< 10.1	ug/L	1/8/2020 02:57
Hexachloroethane	< 10.1	ug/L	1/8/2020 02:57
Indeno (1,2,3-cd) pyrene	< 10.1	ug/L	1/8/2020 02:57
Isophorone	< 10.1	ug/L	1/8/2020 02:57
Naphthalene	< 10.1	ug/L	1/8/2020 02:57
Nitrobenzene	< 10.1	ug/L	1/8/2020 02:57
N-Nitroso-di-n-propylamine	< 10.1	ug/L	1/8/2020 02:57
N-Nitrosodiphenylamine	< 10.1	ug/L	1/8/2020 02:57
Pentachlorophenol	< 20.1	ug/L	1/8/2020 02:57
Phenanthrene	< 10.1	ug/L	1/8/2020 02:57
Phenol	< 10.1	ug/L	1/8/2020 02:57
Pyrene	< 10.1	ug/L	1/8/2020 02:57

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MWR-102

Lab Sample ID: 200044-09

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	90.4	59.6 - 114		1/8/2020 02:57
2-Fluorobiphenyl	72.5	36.2 - 99.1		1/8/2020 02:57
2-Fluorophenol	27.7	14.9 - 105		1/8/2020 02:57
Nitrobenzene-d5	79.3	53.7 - 102		1/8/2020 02:57
Phenol-d5	18.6	10 - 106		1/8/2020 02:57
Terphenyl-d14	81.5	58.7 - 116		1/8/2020 02:57

Method Reference(s): EPA 8270D

EPA 3510C

Preparation Date: 1/6/2020

Data File: B43612.D

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: MWR-102

Lab Sample ID: 200044-09

Date Sampled: 1/3/2020

Matrix: Groundwater

Date Received: 1/3/2020

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		1/7/2020 17:49
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		1/7/2020 17:49
1,1,2-Trichloroethane	< 2.00	ug/L		1/7/2020 17:49
1,1-Dichloroethane	< 2.00	ug/L		1/7/2020 17:49
1,1-Dichloroethene	< 2.00	ug/L		1/7/2020 17:49
1,2,3-Trichlorobenzene	< 5.00	ug/L		1/7/2020 17:49
1,2,4-Trichlorobenzene	< 5.00	ug/L		1/7/2020 17:49
1,2,4-Trimethylbenzene	< 2.00	ug/L		1/7/2020 17:49
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		1/7/2020 17:49
1,2-Dibromoethane	< 2.00	ug/L		1/7/2020 17:49
1,2-Dichlorobenzene	< 2.00	ug/L		1/7/2020 17:49
1,2-Dichloroethane	< 2.00	ug/L		1/7/2020 17:49
1,2-Dichloropropane	< 2.00	ug/L		1/7/2020 17:49
1,3,5-Trimethylbenzene	< 2.00	ug/L		1/7/2020 17:49
1,3-Dichlorobenzene	< 2.00	ug/L		1/7/2020 17:49
1,4-Dichlorobenzene	< 2.00	ug/L		1/7/2020 17:49
1,4-Dioxane	< 20.0	ug/L		1/7/2020 17:49
2-Butanone	< 10.0	ug/L		1/7/2020 17:49
2-Hexanone	< 5.00	ug/L		1/7/2020 17:49
4-Methyl-2-pentanone	< 5.00	ug/L		1/7/2020 17:49
Acetone	< 10.0	ug/L		1/7/2020 17:49
Benzene	< 1.00	ug/L		1/7/2020 17:49
Bromochloromethane	< 5.00	ug/L		1/7/2020 17:49

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MWR-102			
Lab Sample ID:	200044-09		Date Sampled:	1/3/2020
Matrix:	Groundwater		Date Received:	1/3/2020
Bromodichloromethane	< 2.00	ug/L		1/7/2020 17:49
Bromoform	< 5.00	ug/L		1/7/2020 17:49
Bromomethane	< 2.00	ug/L		1/7/2020 17:49
Carbon disulfide	< 2.00	ug/L		1/7/2020 17:49
Carbon Tetrachloride	< 2.00	ug/L		1/7/2020 17:49
Chlorobenzene	< 2.00	ug/L		1/7/2020 17:49
Chloroethane	< 2.00	ug/L		1/7/2020 17:49
Chloroform	< 2.00	ug/L		1/7/2020 17:49
Chloromethane	< 2.00	ug/L		1/7/2020 17:49
cis-1,2-Dichloroethene	1.77	ug/L	J	1/7/2020 17:49
cis-1,3-Dichloropropene	< 2.00	ug/L		1/7/2020 17:49
Cyclohexane	< 10.0	ug/L		1/7/2020 17:49
Dibromochloromethane	< 2.00	ug/L		1/7/2020 17:49
Dichlorodifluoromethane	< 2.00	ug/L		1/7/2020 17:49
Ethylbenzene	< 2.00	ug/L		1/7/2020 17:49
Freon 113	< 2.00	ug/L		1/7/2020 17:49
Isopropylbenzene	< 2.00	ug/L		1/7/2020 17:49
m,p-Xylene	< 2.00	ug/L		1/7/2020 17:49
Methyl acetate	< 2.00	ug/L		1/7/2020 17:49
Methyl tert-butyl Ether	13.9	ug/L		1/7/2020 17:49
Methylcyclohexane	< 2.00	ug/L		1/7/2020 17:49
Methylene chloride	< 5.00	ug/L		1/7/2020 17:49
Naphthalene	< 5.00	ug/L		1/7/2020 17:49
n-Butylbenzene	< 2.00	ug/L		1/7/2020 17:49
n-Propylbenzene	< 2.00	ug/L		1/7/2020 17:49

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	MWR-102			
Lab Sample ID:	200044-09		Date Sampled:	1/3/2020
Matrix:	Groundwater		Date Received:	1/3/2020
o-Xylene	< 2.00	ug/L		1/7/2020 17:49
p-Isopropyltoluene	< 2.00	ug/L		1/7/2020 17:49
sec-Butylbenzene	< 2.00	ug/L		1/7/2020 17:49
Styrene	< 5.00	ug/L		1/7/2020 17:49
tert-Butylbenzene	< 2.00	ug/L		1/7/2020 17:49
Tetrachloroethene	< 2.00	ug/L		1/7/2020 17:49
Toluene	< 2.00	ug/L		1/7/2020 17:49
trans-1,2-Dichloroethene	< 2.00	ug/L		1/7/2020 17:49
trans-1,3-Dichloropropene	< 2.00	ug/L		1/7/2020 17:49
Trichloroethene	< 2.00	ug/L		1/7/2020 17:49
Trichlorofluoromethane	< 2.00	ug/L		1/7/2020 17:49
Vinyl chloride	< 2.00	ug/L		1/7/2020 17:49
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>119</b>	74.3 - 138		1/7/2020 17:49
4-Bromofluorobenzene	<b>85.1</b>	66.3 - 125		1/7/2020 17:49
Pentafluorobenzene	<b>97.9</b>	87.4 - 111		1/7/2020 17:49
Toluene-D8	<b>89.2</b>	85.8 - 113		1/7/2020 17:49

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x67691.D

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: Trip Blank

Lab Sample ID: 200044-10

Date Sampled: 1/2/2020

Matrix: Water

Date Received: 1/3/2020

**Volatile Organics**

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		1/6/2020 22:00
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		1/6/2020 22:00
1,1,2-Trichloroethane	< 2.00	ug/L		1/6/2020 22:00
1,1-Dichloroethane	< 2.00	ug/L		1/6/2020 22:00
1,1-Dichloroethene	< 2.00	ug/L		1/6/2020 22:00
1,2,3-Trichlorobenzene	< 5.00	ug/L		1/6/2020 22:00
1,2,4-Trichlorobenzene	< 5.00	ug/L		1/6/2020 22:00
1,2,4-Trimethylbenzene	< 2.00	ug/L		1/6/2020 22:00
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		1/6/2020 22:00
1,2-Dibromoethane	< 2.00	ug/L		1/6/2020 22:00
1,2-Dichlorobenzene	< 2.00	ug/L		1/6/2020 22:00
1,2-Dichloroethane	< 2.00	ug/L		1/6/2020 22:00
1,2-Dichloropropane	< 2.00	ug/L		1/6/2020 22:00
1,3,5-Trimethylbenzene	< 2.00	ug/L		1/6/2020 22:00
1,3-Dichlorobenzene	< 2.00	ug/L		1/6/2020 22:00
1,4-Dichlorobenzene	< 2.00	ug/L		1/6/2020 22:00
1,4-Dioxane	< 20.0	ug/L		1/6/2020 22:00
2-Butanone	< 10.0	ug/L		1/6/2020 22:00
2-Hexanone	< 5.00	ug/L		1/6/2020 22:00
4-Methyl-2-pentanone	< 5.00	ug/L		1/6/2020 22:00
Acetone	< 10.0	ug/L		1/6/2020 22:00
Benzene	< 1.00	ug/L		1/6/2020 22:00
Bromochloromethane	< 5.00	ug/L		1/6/2020 22:00

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier: Trip Blank

Lab Sample ID: 200044-10

Date Sampled: 1/2/2020

Matrix: Water

Date Received: 1/3/2020

Bromodichloromethane	< 2.00	ug/L	1/6/2020 22:00
Bromoform	< 5.00	ug/L	1/6/2020 22:00
Bromomethane	< 2.00	ug/L	1/6/2020 22:00
Carbon disulfide	< 2.00	ug/L	1/6/2020 22:00
Carbon Tetrachloride	< 2.00	ug/L	1/6/2020 22:00
Chlorobenzene	< 2.00	ug/L	1/6/2020 22:00
Chloroethane	< 2.00	ug/L	1/6/2020 22:00
Chloroform	< 2.00	ug/L	1/6/2020 22:00
Chloromethane	< 2.00	ug/L	1/6/2020 22:00
cis-1,2-Dichloroethene	< 2.00	ug/L	1/6/2020 22:00
cis-1,3-Dichloropropene	< 2.00	ug/L	1/6/2020 22:00
Cyclohexane	< 10.0	ug/L	1/6/2020 22:00
Dibromochloromethane	< 2.00	ug/L	1/6/2020 22:00
Dichlorodifluoromethane	< 2.00	ug/L	1/6/2020 22:00
Ethylbenzene	< 2.00	ug/L	1/6/2020 22:00
Freon 113	< 2.00	ug/L	1/6/2020 22:00
Isopropylbenzene	< 2.00	ug/L	1/6/2020 22:00
m,p-Xylene	< 2.00	ug/L	1/6/2020 22:00
Methyl acetate	< 2.00	ug/L	1/6/2020 22:00
Methyl tert-butyl Ether	< 2.00	ug/L	1/6/2020 22:00
Methylcyclohexane	< 2.00	ug/L	1/6/2020 22:00
Methylene chloride	< 5.00	ug/L	1/6/2020 22:00
Naphthalene	< 5.00	ug/L	1/6/2020 22:00
n-Butylbenzene	< 2.00	ug/L	1/6/2020 22:00
n-Propylbenzene	< 2.00	ug/L	1/6/2020 22:00

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Report Prepared Thursday, January 16, 2020



Lab Project ID: 200044

Client: **Bergmann Associates**

Project Reference: VOA Back Lot

Sample Identifier:	Trip Blank			Date Sampled:	1/2/2020
Lab Sample ID:	200044-10			Date Received:	1/3/2020
Matrix:	Water				
o-Xylene	< 2.00	ug/L		1/6/2020	22:00
p-Isopropyltoluene	< 2.00	ug/L		1/6/2020	22:00
sec-Butylbenzene	< 2.00	ug/L		1/6/2020	22:00
Styrene	< 5.00	ug/L		1/6/2020	22:00
tert-Butylbenzene	< 2.00	ug/L		1/6/2020	22:00
Tetrachloroethene	< 2.00	ug/L		1/6/2020	22:00
Toluene	< 2.00	ug/L		1/6/2020	22:00
trans-1,2-Dichloroethene	< 2.00	ug/L		1/6/2020	22:00
trans-1,3-Dichloropropene	< 2.00	ug/L		1/6/2020	22:00
Trichloroethene	< 2.00	ug/L		1/6/2020	22:00
Trichlorofluoromethane	< 2.00	ug/L		1/6/2020	22:00
Vinyl chloride	< 2.00	ug/L		1/6/2020	22:00
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	106	74.3 - 138		1/6/2020	22:00
4-Bromofluorobenzene	82.3	66.3 - 125		1/6/2020	22:00
Pentafluorobenzene	100	87.4 - 111		1/6/2020	22:00
Toluene-D8	91.7	85.8 - 113		1/6/2020	22:00

Method Reference(s): EPA 8260C

EPA 5030C

Data File: x67668.D

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Report Prepared Thursday, January 16, 2020



## Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

*"<" = Analyzed for but not detected at or above the quantitation limit.*

*"E" = Result has been estimated, calibration limit exceeded.*

*"Z" = See case narrative.*

*"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.*

*"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.*

*"B" = Method blank contained trace levels of analyte. Refer to included method blank report.*

*"J" = Result estimated between the quantitation limit and half the quantitation limit.*

*"L" = Laboratory Control Sample recovery outside accepted QC limits.*

*"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.*

*"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.*

*"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

*"(1)" = Indicates data from primary column used for QC calculation.*

*"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.*

*"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.*

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# GENERAL TERMS AND CONDITIONS

## LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

### Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

### Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

### Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

### Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

### Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

### Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

### Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

### Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

### Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

### Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

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# CHAIN OF CUSTODY

Page 1 of 2

1 of 3



<b>PROJECT REFERENCE</b> V04 Back Lot		<b>REPORT TO:</b> CLIENT: <u>Brogman</u> ADDRESS: <u>280 E Grand St</u> CITY: <u>Rochester</u> STATE: <u>NY</u> ZIP: <u>14608</u> PHONE: _____ ATTN: _____		<b>INVOICE TO:</b> CLIENT: _____ ADDRESS: _____ CITY: _____ STATE: _____ ZIP: _____ PHONE: _____ ATTN: _____		<b>LAB PROJECT ID</b> <u>200044</u>	
<b>Matrix Codes:</b> AQ - Aqueous Liquid NQ - Non-Aqueous Liquid WA - Water WG - Groundwater DW - Drinking Water WW - Wastewater SO - Soil SL - Sludge SD - Solid PT - Paint WP - Wipe CK - Caulk OL - Oil AR - Air		<b>REQUESTED ANALYSIS</b>					
<b>Matrix Codes:</b> AQ - Aqueous Liquid NQ - Non-Aqueous Liquid WA - Water WG - Groundwater DW - Drinking Water WW - Wastewater SO - Soil SL - Sludge SD - Solid PT - Paint WP - Wipe CK - Caulk OL - Oil AR - Air		8260 TCL + TAL Metals 8270 TCL per Sample Labels CP 1/3/20					
<b>Quotation #:</b>		<b>Email:</b>					

DATE COLLECTED	TIME COLLECTED	C O M P O S I T E	G R A B	SAMPLE IDENTIFIER	M C A O T D R E I S	C O U N T I N G	REMARKS	PARADIGM LAB SAMPLE NUMBER
1/3/20	0930		X	MWR-101	WG	Y		01
1/3/20	1000		X	MW-101	WG	Y		02
1/3/20	1030		X	MW-103	WG	Y		03
1/3/20	1115		X	MW-107	WG	Y		04
1/3/20	1120		X	MW-10	WG	Y		05
1/3/20	1200		X	MW-105	WG	Y		06
1/3/20	1245		X	MW-106	WG	Y		07
1/3/20	130		X	MW-108	WG	Y		08
1/3/20	200		X	MWR-102	WG	Y		09
1/3/20	200		X	MWR-103 MS	WG	Y		09

<b>Turnaround Time</b>		<b>Report Supplements</b>	
Availability contingent upon lab approval; additional fees may apply.			
Standard 5 day	<input type="checkbox"/>	None Required	<input type="checkbox"/>
10 day	<input checked="" type="checkbox"/>	Batch QC	<input type="checkbox"/>
Rush 3 day	<input type="checkbox"/>	Category A	<input type="checkbox"/>
Rush 2 day	<input type="checkbox"/>	Category B	<input checked="" type="checkbox"/>
Rush 1 day	<input type="checkbox"/>		
Date Needed		Other	<input type="checkbox"/>
Please indicate date needed:		Other EDD	
		<input type="checkbox"/>	
		Please indicate EDD needed:	

Sampled By	Date/Time	Relinquished By	Date/Time
<u>Stephen J. DeMeo</u>	<u>1/3/20 230</u>	<u>Emily Tannen</u>	<u>1/3/20 1430</u>
Received By	Date/Time	Received @ Lab By	Date/Time
<u>2</u>	<u>1/3/20 14:36</u>	<u>700</u>	<u>1/3/20 14:35</u>

By signing this form, client agrees to Paradigm Terms and Conditions (reverse), CP 1/3/20

Custody Seal N/A, Samples delivered by client, CP 1/3/20

See additional page for sample conditions.

## Page 2 of 2



WDA Backlot

**PARADIGM 1**  
**SAMPLE**

Asp, Cat, B,

**Total Cost:**

See additional page for sample conditions.



3.f3

### Chain of Custody Supplement

Client: Bergmann Completed by: Glenn Pezzulo  
Lab Project ID: 20 0044 Date: 1/3/20

#### **Sample Condition Requirements**

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input checked="" type="checkbox"/> vOA	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Preservation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> SvOA
Comments			
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> metals
Comments	<u>7°C iced started in field</u>		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			